

# Air Conditioning & Refrigeration News

The Newspaper of the Industry

VOL. 28, NO. 11, SERIAL NO. 556  
ESTABLISHED 1926Copyright, 1939, by  
Business News Pub. Co.Trade Mark Registered U. S. Patent Office.  
Member Audit Bureau of Circulations. Member Associated Business Papers.

DETROIT, MICHIGAN, NOVEMBER 15, 1939

Entered as second-class  
matter Aug. 1, 1927

Written to Be Read on Arrival

ISSUED EVERY WEDNESDAY  
\$4.00 PER YEAR

## IN THIS ISSUE

How are sales of commercial refrigerators made today? One dealer who entered the business not so long ago discovered he was up against a rather startling and pretty distressing situation. He tells about some actual experiences and gives his version of possible solutions. Page 11.

Mr. Appliance Dealer, are your accounting methods up to date? Two experts who have made a special study of the appliance retailer's problems in keeping the books have prepared a model system which any dealer can adapt to his own operation. Pages 12 and 13.

If you're being heckled by prospects who are armed with the arguments taken from the so-called "Consumer's" publications you'll enjoy (and perhaps find some ammunition in) the editorial on page 8 which puts the spotlight on the holes in the "Consumer's Bureaus" idea.

The Editor's "Personalities" page gives you some more of the inside story on the industry's goings and the men who direct its activities. Page 2.

The second instalment of the very informative and useful article about a service analyzer chart for commercial refrigeration and air-conditioning systems will be found on pages 14 and 15.

Air-conditioning news and data on pages 4 and 7; distributor-dealer doings reported on page 9; profitable selling methods and ideas described on page 6; letters from readers on page 10.

## Va. Smelting Boosts So. American Trade, All Export Business

NORFOLK, Va.—Reports and inquiries from South America, South Africa, and the Orient indicate that Virginia Smelting Co. will benefit from the current industrial activity resulting from both domestic and foreign trade conditions, Robert LeBaron, sales manager, told the company's annual sales conference here Oct. 23 to 26.

Sharp upward trend in refrigerant sales has been evidenced so far this year, he declared.

Marked activity in the export division of the company was reported by F. A. Eustis, treasurer, and L. J. Hitch, export manager. Inquiries and orders point to increased trade in refrigerants, with particular strength in South American sales, they said.

Similar views were expressed by A. H. Eustis, president, who opened the meeting with a message of welcome to the regional sales supervisors. Attendance at the meeting was the largest in the company's (Concluded on Page 15, Column 2)

## Gibson Will Hold 4 Regional Conventions

GREENVILLE, Mich.—Four regional meetings instead of a national convention will be held this year by Gibson Electric Refrigerator Corp. to introduce its new line to its national sales organization.

This change was made, it was explained, so that Gibson salesmen as well as distributors might attend the meetings.

Schedule for the district sessions follows: San Francisco, Nov. 27-28; Chicago, Nov. 27-28; Atlanta, Dec. 4-5; New York City, Dec. 27-28.

## Buffalo Council Lauded For Sound Basis of Air Conditioner Sales

BUFFALO—"In three years, this council has brought the merchandising of air conditioning out of a state of chaos into a sensibly run business," declared Merrill E. Skinner, vice president of the Buffalo, Niagara & Eastern Power Corp., speaking before the first 1939-40 meeting of the Air Conditioning Council of Western New York here last month. The meeting was attended by many of the city's bankers, industrialists, civic leaders, and medical authorities, as well as some 200 members of the council.

He urged air-conditioning men to accept the responsibility of seeing that the public gets what it pays for. He also declared that the council is contributing to the health and welfare of the community.

"By doing this you are building your business on a sound basis," the

speaker said. "If you can find out how air conditioning will help the sick, it will lead to a better program for helping those who are well."

Mr. Skinner went on to point out that the information furnished by the weather bureau is not always of great value to the air-conditioning men. Weather bureau reports are fairly accurate for giving reports from various cities on a comparative basis, he said, but they do not clearly reflect temperature conditions as they prevail in the street or in office buildings or homes.

"Many people use the weather bureau report as a reason for saying 'no' to an air-conditioning salesman," Mr. Skinner said. "The air-conditioning man is interested not in the outside temperature, but in the inside temperature." He then cited com-

(Concluded on Page 7, Column 1)

## G-E Steps Up Sales Of Big Porcelain Jobs

BRIDGEPORT, Conn.—Sales of General Electric all-porcelain 12 and 16-cu. ft. refrigerators increased 73% during August and September as a result of the "Blue Chip" campaign conducted during that period, reports A. C. Sanger, household refrigerator sales manager.

In this reversal of the declining sales market for large-size units which has been experienced during the past two years, one district reported an increase of 121% over 1938 sales, Mr. Sanger said. Another

(Concluded on Page 15, Column 4)

## Florida City Council To Sell Appliances

LAKE WORTH, Fla.—Warning that the city of Lake Worth is planning to engage in the sale of major electrical appliances in direct competition with private enterprise was sounded here at a recent meeting of the city commission by Mayor Grady H. Brantley.

The move is being made, the mayor explained, in order to raise revenue for general municipal operation expense. The mayor's statement came simultaneously with official action to reduce the city's electric light and power rate schedule in accord with an election promise made last spring.

## Pittsburgh C. of C. To Fight 'Group Buying'

PITTSBURGH—Cooperation of wholesale and retail groups in an endeavor to eliminate discount sales and similar merchandising malpractices was effected recently as the city's Chamber of Commerce made the initial move in a campaign to halt such trade abuses.

A declaration of policy in this regard was framed by representatives of the city's various retail organizations after they had met at the invitation of the Chamber of Commerce.

(Concluded on Page 16, Column 1)

## 'Sympathy Strike' At Norge Plant Ends

DETROIT—The sympathy strike which started in the Detroit Gear & Machine and the Norge Heating & Conditioning divisions of Borg-Warner Corp. Oct. 30 when employees walked out in protest against the failure of the corporation to settle the strike in Long Mfg. Co., another Borg-Warner subsidiary, is now over. The striking employees returned to their jobs Wednesday, Nov. 8.

The Norge plant in Muskegon, Mich. was not affected by the strike, and the production of Norge appliances was in no way curtailed.

## Extra Accessories Added By Hotpoint In 'Xmas Special'

CHICAGO—Tagged as a "Christmas Special" and bearing a top suggested list price of less than \$165, a new 6-cu. ft. Hotpoint refrigerator has been placed on the market by Edison General Electric Appliance Co., Inc. to help its dealers boost Hotpoint sales volume during the holiday season and to create a solid bank of refrigerator prospects with which to "start the New York right."

Construction of the new special model is very similar to that of the standard Hotpoint line for 1939. It is powered by the Hotpoint "Thriftmaster" and is finished in "CAlgloss."

Extra convenience features include: automatic interior light, special door on the "Speed Freezer," two metal ice trays with rigid grids, one all-rubber tray, one aluminum tray, a vegetable pan, and a fruit basket.

To make it a truly colorful holiday attraction, the "Christmas Special" contains a nine-piece set of colored dishes consisting of a red water bottle, two square dishes of green crystal with clear covers, a crystal meat-loaf dish with clear cover, an 8-inch yellow mixing bowl, three 5-inch yellow left-over dishes, and one butter dish.

## Alabama Utility Cuts Down Payments

BIRMINGHAM, Ala.—As an experiment to stimulate business in a 60-day pre-Thanksgiving and pre-Christmas campaign, Alabama Power Co. has reduced the down payment on appliances sold by its salesmen and dealers as much as 50% and extended the terms up to 36 months.

On all major appliances, a minimum down payment of 5% of the purchase price has been fixed, with maximum maturities of 36 months on ranges, water heaters, and refrigerators. On washers, ironers, and dishwashers, payments may be extended over 24 months, and on vacuum cleaners, 18 months.

On combination sales, payments may be lengthened to those of the longest-term appliance in the deal. Minimum down payment on any major appliance is \$5.

The new terms are "on trial" during the campaign period, the company announced, with their continuance depending upon public acceptance during the drive.

## Industry Sales Show Fall Gains On All Fronts

### San Francisco September Sales Top All Marks

SAN FRANCISCO—Taking advantage of warm September weather, dealers in the San Francisco territory ran up a total of 1,568 electric refrigerator sales during the month to set what is declared to be an all-time high mark for any month in the company's history, reports to Pacific Gas & Electric Co. reveal.

September refrigerator sales this year were 50% above those for August, the preceding month, and 250% higher than those in September (Concluded on Page 16, Column 1)

### Birmingham Appliance Volume Up 34%

BIRMINGHAM, Ala.—Electrical appliance sales in Birmingham for the first three quarters of the year showed a 34% gain in dollar volume over the same period in 1938, according to figures on dealer sales compiled by Birmingham Electric Co.

Total sales for this year through Sept. 30 totaled \$2,862,161, compared with \$2,195,532 for the same period in 1938. Dealers got 97% of the business, compared with 93% last (Concluded on Page 16, Column 2)

### Norge Ships 21,259 Appliances In October

DETROIT—Refrigerators paced all other Norge appliances in October in a general increase which resulted in a total of 21,259 of the company's products being shipped during the month. This figure is 148.3% of all-product shipments reported for October, 1938.

These gains top increases in September, when Norge shipments were 126.5% of those in September of the previous year.

Refrigerator shipments were 1,834% of those in October, 1938. Gas range shipments were 115.9% of those for the same month a year ago. Washer shipments were 141.8% of those in the corresponding month last year.

### York Orders Gain 42% In Last 5 Months

YORK, Pa.—A 42% increase in orders booked during the past five months over those of the same period last year has been reported by York Ice Machinery Corp.

During the five-month period from June 1, 1938 to Nov. 1, 1939, orders booked totaled \$6,501,499, compared to \$4,576,831 for the corresponding period of 1938.

The corporation's volume for the past five months was 18% greater than for the same period in 1937. October volume this year practically equaled that of October, 1936, which was the highest October mark in the past nine years.

### Air Conditioning Sales In Chicago Set Record

CHICAGO—Sale of 29 room coolers during October was responsible for establishing a new all-time high in air-conditioning sales for the month, according to reports issued by Commonwealth Edison Co. In addition, 15 central-station installations were made, having a total of 164 hp.

This compares with five systems having a total of 150 hp. sold during the corresponding period of 1938, when only three room coolers were installed.

Some of the outstanding "old timers" who have promised to attend this gathering include:

E. T. Williams, New York City.  
Dr. Frank Conrad, Westinghouse, East Pittsburgh.

J. H. Dennedy, Sunbeam, Evansville, Ind.

Harry E. Thompson, Copeland, Sidney, Ohio.

Chris Steenstrup, General Electric, Schenectady, N. Y.

Fred J. Heideman, Aerflo Cooling Systems, Detroit.

F. D. Peltier, Philco Refrigerator Co., Indianapolis.

Frank West, Detroit.

Deane E. Perham, Chicago Master Steamfitters Association, Chicago.

Many others, yet to be heard from, have been invited.

It is the purpose of this gathering to let these early inventors and developers put their feet underneath a common table, and reminisce about

early days, early problems, early defeats, early triumphs.

Out of it all is expected to come a fairly cogent outline of the electric refrigeration industry's early history. Long-argued questions may be settled, long-forgotten facts brought to light.

From the standpoint of the historian, the electric refrigeration industry is in a peculiarly fortunate position. Mighty as it is, wideflung as are its ramifications, it has had its rise and development in the last quarter century. Hence most of its pioneers are still very much alive, and source material can be obtained—and verified—at first hand.

Plans for the Old Timers Reunion are strictly informal. There will be no set speeches, no papers read. Laughs aplenty and good fellowship are forecast for all who attend.

Any member of the refrigeration industry is welcome. Dinner (\$1.00 per plate) will be served at 7:00 p.m. Please phone the NEWS and make reservations if you wish to attend.

## PERSONALITIES

By George F. Taubeneck

### Finland Is Safe, Says Norwegian

An immense Norseman, built along the general lines of Bronko Nagurski but dressed like something out of Esquire, paid our offices a call last Thursday.

He is a Norwegian by the name of Reidar Haug, and he handles the Melchior-Armstrong-Dessau business in Oslo, Norway. Having left Norway Oct. 9, he should be in an excellent position to know what people over there think about the war and its possibilities.

First of all, most Americans have a sympathetic interest in Finland. They'd hate to see the only country which pays its debts to us overrun by Stalin's assassins. And happily, Mr. Haug doesn't think Russia will dare send troops into Finland. The reason is interesting:

Russia, he says, lives behind borders as effectively closed as if they constituted a super-Chinese wall. The Russian people are never allowed to see what goes on outside. They are misled into believing that outside all is chaos and poverty. Hence it would never do to let the Russian army cross into a country which has higher living standards than Russia does. Stalin would lose control of the army—which he needs to stay in power—in a week if they ever saw how they had been fooled.

Poland! That was different. Living conditions in Poland were worse than almost anywhere else in Europe. The Russian army could move in there and feel vastly better off than the poor wretches they found starving in Poland's wretched hinterland. Same situation prevails in Outer Mongolia, or anywhere in the Far East.

But Finland, according to Mr. Haug, would be a revelation in high living standards to the Russian soldiers. So Stalin would never think of letting a large body of his men cross into that free country.

As an incident he mentioned that

Russia sent a war ship to England at the time of the coronation of the King, and that the commander violated orders by permitting a few of the sailors to go ashore. He claims that the sailors were jailed on their return to Russia to prevent them from talking about what they saw.

Mr. Haug points out that the Finnish border, which is only about 75 miles long, is well fortified. During this past summer, thousands of young men from the offices and factories gave their vacation time free to the government to work on the border fortifications. They received their food and shelter, but no other pay from the government.

\* \* \*

### On Russian Aid To Germany

It's Mr. Haug's belief—and he says this opinion is shared by most Scandinavians—that Germany is too weak economically to stand up under England's blockade for more than a couple of years.

Russian aid, he says, should be discounted, because Stalin is a hard-boiled business man. He will give Germany raw materials only so long as she can pay for them. Stalin proved this in the Spanish civil war. At first he was on the side of the loyalists, furnishing them with planes and tanks and guns that enabled them to stave off the fascists and their Italo-German friends. And then he deserted the loyalist cause. Why? Because the Spaniards were no longer able to ship him gold in payment.

"If Germany faces slow starvation and eventual loss of the war," Mr. Haug was asked, "why doesn't she send over her bombers to ruin London and Paris in lightning blows?"

"Germany doesn't have enough high test gasoline," he answered. "If London and Paris were bombed, Berlin would get it in retaliation. At first the superior German air force would strike the most telling

blows. But the gasoline supply would soon run out, and she'd then be at the mercy of the English and French bombers."

Mr. Haug believes that the Scandinavian countries can again stay out of the fighting. The economic cost will be terrific (Norway lost 30% of her shipping—her greatest industry—in the last war) but nothing compared with the cost of getting into the war actively.

\* \* \*

### The Bogarts Are Happy In An All-Electric Home

Back to America—and boy, what a grand feeling to get back to America and a scene like the one just coming up—the writer was entertained at dinner the other night out at the lovely new all-electric home of H. G. ("Bo") Bogart, Toledo distributor of General Electric appliances.

Gentlemen, it was a pleasure.

From the moment when a magnetic device lifts the garage door as you drive up to the house, to the final moments in the cute-lit vestibule, you're aware of the joy in electrical living.

Concealed lighting, indirect lighting, an all-electric kitchen, G-E air conditioning—it's all there, with bells on. And "Bo" really enjoys it, too.

Pretty Mrs. Bogart came in from a lecture about the same time we did. She took us out to the kitchen (which has a swanky breakfast bar, instead of the conventional breakfast nook), and while she was showing it off, she took various things out of compartments of the range and refrigerator, and there was dinner, all ready.

Two tall sons were very entertaining at dinner. Both are alert, well-informed lads who have been encouraged to speak up and express their own opinions all their lives. Perhaps because of this policy their conversation seemed mature far beyond their years.

The eldest, who plays on a championship high school basketball team, went to Europe to the International Boy Scout jamboree a couple of years back, and he really kept his eyes open while he was there.

Next year he plans on entering some college (Georgetown, for instance), where he can get a good preparation for a career in foreign diplomacy. He has a good angle on that: After the conclusion of the current war, a great deal of work will be needed to restore order and the normal processes of international communion. It will take a long time, and a lot of talent.

Diplomats, he figures, will be in demand.

Personally, we think he has something there.

\* \* \*

### The Terry Theory

Speaking of the democratic, initiative-encouraging manner in which the Bogarts have brought up their two fine sons reminds us of an interesting commentary on the moving of the General Electric specialty appliance department from Cleveland to Bridgeport.

A number of people are inclined to think that the Cleveland boys will make things pretty lively down East. They've had a lot of rope out at Cleveland's Nela Park, and chances are they'll raise many an eyebrow in their new surroundings.

Those who have watched executives trained at Nela Park leave to

### Eskimos Hole Up For Winter In Carrier Igloo



When a family of real Alaskan Eskimos, brought to the New York World's Fair by Explorer Dave Irwin, faced the prospect of trekking 14,000 miles home and back again next spring for the 1940 Fair, Carrier officials came to the rescue. Above the Mayokoks and their huskies are shown in winter quarters at the Carrier exhibit building on the Fair grounds.

accept a position with some other company have often noted that the Nela Park boys are accustomed to exercising freedom of speech to a degree almost unheard of in many other quarters. They say what they think, and to hell with you, even if you are the boss.

It all goes back to a man named F. S. Terry, the patron saint of Nela Park, who was a thorough-going believer in democracy. He insisted on giving every man all the opportunity for initiative and freedom of expression of which he was capable. Let him stub his toe, reasoned Terry—he'd remember that lesson all the better for it.

Every man who worked in the Lamp Works was encouraged to "speak right out in meeting." Criticism of one's superiors, or of company policy, was invited. And men were taught how to think on their feet, debate, and speak with clarity and purpose.

Just as in Napoleon's army, "every private carried a general's baton in his knapsack." The boys were encouraged to think of themselves as future executives. They were coached, sure, but they were also allowed to carry the ball.

Result was that when the General Electric refrigerator came along, it was turned over to the Nela Park crowd to sell. And almost from obscurity came a whole crew of raring-to-go youthful executives—men like Quinn, Zimmerman, Daily, Chapman, and Sweeney, plus a remarkable set of young men who were set up around the country as distributors.

What these fellows did to the household refrigeration picture was little short of startling. They put over the hermetic unit, the long-term guarantee, the all-electric kitchen (forcing the rest of the industry into the range business), and took G-E right up to the top of the heap in a few short years.

Mr. Terry's policy of giving young men plenty of rope, and letting them speak up, paid General Electric real dividends in this instance.

\* \* \*

### Ted Quinn's Mother Still Going Strong

Mention of Ted Quinn, former manager of the G-E refrigeration department, and now president of Maxon, Inc., reminds us that his mother—believe it or not—is now manufacturing refrigerated trucks down in Florida.

Mrs. Quinn is a remarkable woman. She was with the Lamp Works in Cleveland for a long time, resigning in 1922 to organize her own electric lamp manufacturing concern. She did so well with this that General Electric bought her out.

Now she has 12 patents on trucks refrigerated by solid carbon dioxide through a secondary system. And she has organized Broquinda, Inc. at 19th St. and Second Ave. South, St. Petersburg, Fla., to manufacture under these patents.

You'll be hearing more from her.

\* \* \*

### Dave Irwin's Eskimos

A hazardous 7,000-mile trek to the ice-bound wastes of Cape Prince of Wales, Alaska, which confronted the only family of Eskimos in the United States, was averted last week when the natives found refuge in the Carrier Igloo at the World's Fair. They moved in for the winter when the Fair closed.

The prospect of converting the Fairgrounds into a great Eskimo reservation was accepted with enthusiasm by Robert Mayokok, 36-year-old full-blooded Eskimo, who hails from the most northwesterly point on the North American continent. He took his wife and four young children to bed down in the 70-foot high igloo which will serve as their new winter quarters.

Mayokok, who speaks English fairly well, having been educated in the government schools in Alaska, is head of the family. His wife, Seelook, carries a baby on her back in an Eskimo amut. The children include three boys, Weokona, 6, Argutuk, 2, and Oongoona, 11 months, and Tumaysuk, a 4-year old girl.

The Eskimos have been at the World's Fair all summer. They were brought to this country by Dave Irwin, famous 28-year-old Arctic explorer and author, who four years ago made a dramatic 3,600 mile dog-sled trek alone across the frozen North from Aklavik in the Yukon to Churchill on Hudson Bay.

"Frankly, I have been quite concerned about how I could get them back to Cape Prince of Wales this winter," Dave writes. "By now, Alaska is frozen in and it would be next to impossible to break through to their home, which is on the Bering Straits, only 40 miles from East Cape, Siberia."

Several of the industry's promotion managers may recall that the writer attempted to interest them in Dave Irwin and his Eskimos—as a New York World's Fair magnet to their industrial exhibits—last winter. Dave, a Grand Rapids boy who had the unparalleled adventure which he recorded in the book "Alone Across the Top of the World," has long been a personal friend.

He finally obtained financial backing for his Eskimo family exhibit, and set it up as a private enterprise in the Amusement Section of the World's Fair, where he made considerably more money than he would have as a sponsored show.

## "PENNY WISE" MAY MEAN DOLLARS LOST

• Saving a few cents at the expense of dependability in building dehydrators may mean many dollars lost to you as well as to your customer.

• We build reliable dehydrators, and they are sold at a fair price. We can build cheaper ones by sacrificing quality.

• We can, for instance, reduce the capacity of the outlet filters, use smaller and lighter metal parts and exercise less care in keeping the dehydrating agents fully activated. We can use inferior dehydrating agents and take less time in assembling the parts.

• We might save the consumer a few pennies in first cost but—it might ultimately cost him hundreds of dollars. We know that a cheaply constructed dehydrator will cost the user many times the entire cost of the device through repeated service calls and even in the spoilage of the refrigerated products.

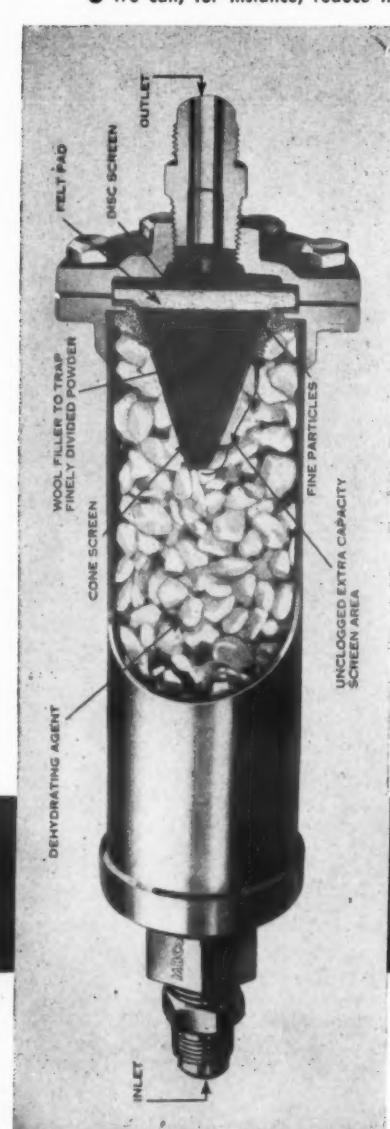
• We know the consumer does not want an inefficient dehydrator even at the saving of a few cents, and we don't believe you would knowingly risk the possible loss in dollars as well as in reputation. We do believe that the small increase in cost necessary to make any device thoroughly reliable is always justified.

### IMPORTANT

Note greatly increased separating area of cone screen providing greater efficiency and longer life for the Dehydrator.

Area of Mueller Brass Co. Cone Screen, 4.125 sq. ins.

Area of corresponding flat screen, 1.49 sq. ins.



**MUELLER  
BRASS CO.**  
PORT HURON, MICH.

• The illustration above is a sectionalized view of the improved Mueller Brass Co. Dehydrator with cone shaped screen and wool filler. Note the manner in which fine particles are deposited at base of screen.

## MANHATTAN V-BELTS

### Customer Builders . . .

Trouble-free drives because they are built for steady service. Exclusive construction—endless whipcord strength member completely floated in rubber and placed in the neutral axis—resists destructive internal heat, stretch and side-wear. Thus, they remain flexible, strong, smooth running, noiseless.

**THE MANHATTAN RUBBER MANUFACTURING DIVISION**  
of Raybestos-Manhattan, Inc.  
45 TOWNSEND STREET  
PASADENA, CALIFORNIA

# Saving of batteries by plugging in AC-DC current when available make **CROSLEY** portables highly saleable!

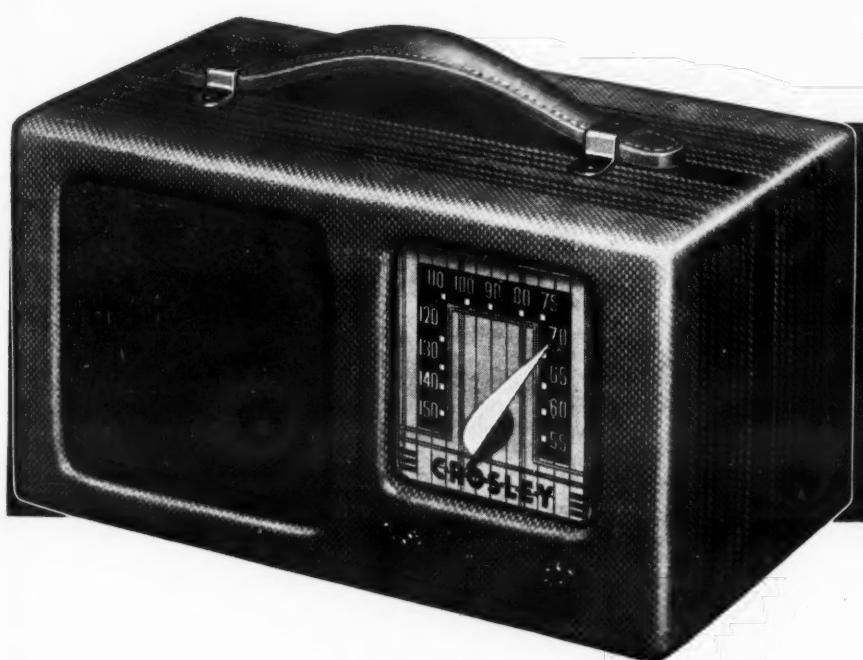
## **MODEL B-549A (Right)**

many uses in the home and out of the home—appeals to ALL members of the family—and presents a great big value in its saving of batteries when a light socket is available to plug in the AC-DC extension. It's a splendid radio. You'll find its performance in reception and clarity of tone delight all who hear it.

The switch over from batteries to AC-DC electric current is automatic, which is a leading selling feature. Weight only 12 lbs. Complete with 200 hour batteries it's "hot." It moves **\$24.95** swiftly at .....



**YOU'RE there with a CROSLEY**



**MODEL B-439A (Above)** Here we have the minimum in portables without sacrificing good quality, tone, volume and performance. 11 lbs. in weight. Size 11 x 6 1/4 x 5 3/4 inches. Airplane luggage fabric adds smartness. Sold with batteries good for 200 hours. .... **\$18.95**



## **PORTABLE COMBINATION**

**MODEL B-5549A (Right)** is an unmatched value and a strong Christmas item because it's a 24-lb. combination of the 549A chassis and a husky spring wound motor. Equipped with the automatic switch over from batteries to AC-DC current when outlets are available, it promises economy in operation. 1 to 8 records can be stowed away inside with everything snug and tight for toting anywhere. Complete with 200 hour batteries. .... **\$39.95**

The Crosley line is ALL fast moving with superhets at \$9.99, 2-band 7-tube superhets at \$19.99. Other table models to \$29.95. Consoles from \$39.95 to \$69.95 to deluxe combination consoles with Capehart record changers at \$114.50.

Prices slightly higher in South and West.

**THE CROSLEY CORPORATION, Cincinnati**

Home of "the Nation's Station"—  
WLW-70 on your dial  
**POWEL CROSLEY, Jr., President**

# Air Conditioning

## Boyd-Cooper Co. Appointed Frigidaire Distributor For Metropolitan Detroit

DETROIT—Boyd-Cooper Heating Co. has been appointed distributor of Frigidaire commercial air-conditioning products for metropolitan Detroit, announces Elmer L. Boyd, president of the company. The concern has been engaged in residential heating and air conditioning since 1932, distributing the "Bard" line of furnaces.

"Entering the commercial air-conditioning field at this time is part of our normal program of expansion," Mr. Boyd said. "At the present time we are installing an average of five

winter air-conditioning systems a day, or approximately 1,500 per year. We have a staff of over 100 employees, and our shop is operating 24 hours per day."

Boyd-Cooper plans to handle all of its own installation work in connection with the Frigidaire franchise, being equipped to do sheet metal, refrigerant piping, plumbing, and electrical work. A complete staff of heating and air-conditioning engineers is maintained.

Commercial air-conditioning work will be under the supervision of C. H. Lewis, formerly associated with the Frigidaire branch of Detroit, and more recently sales manager of R. L. Spitzley Co., former Delco-Frigidaire distributor. Mr. Lewis was first president of the Air Conditioning Association of Michigan.

B. J. Tremayne is vice president of the distributorship.

Show 'em!  
Sell 'em!

Gilmer's  
"Eye-ful" Tower

MERCHANDISER

This 15" "on-the-counter" Belt Department means no more lost replacement sales

... returns you a profit of  
\$13.92

• Gilmer's "Eye-ful" Tower, complete with 35 assorted most popular sized fast-selling Gilmer belts, can make your store the mecca for this extra service. Look at the extra profit in it for you:

Merchandiser costs . . . \$19.36  
You get . . . . . 33.28  
YOU MAKE . . . . 13.92

Gilmer's Merchandiser consists of:



1 "Handimeter" . . . simple to use, slide-rule type of measurer that instantly measures any belt brought in, up to 75" long and between 3/8" and 3/4" wide.

2 "Eye-ful" Tower . . . a circular stand, 15" in diameter at the base by 32 1/2" high . . . 8 hooks for 70 belts. Good display from any angle. Tower is topped by a high-visibility display sign, on back of which is a perpetual inventory record form.

3 35 fast-selling, easily-identified belts . . . for leading makes of refrigerators, washing machines, air conditioners, oil burners and stokers. Belts come ready to set up and sell.

Plus . . . one copy of "America's Belt Bible," the complete Gilmer Catalog, and a window display card in colors. Complete in one carton. The "Eye-ful" Tower does practically everything except ring up the sale!

L. H. GILMER COMPANY  
Tacony, Philadelphia

Send me complete Gilmer "Eye-ful" Tower assortment.  
Bill me \$19.36 through your nearest jobber.

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
\_\_\_\_\_



Meet Virginia  
Booth 108  
2nd All-Industry  
Exposition  
Chicago, Illinois  
Jan. 15-18

VIRGINIA SMELTING  
COMPANY  
WEST NORFOLK, VIRGINIA

## Zone Control System Cools Men & Stocks In Carboly Plant

DETROIT—Maintenance of the proper temperature and humidity to make employees comfortable, and to keep powdered metal stock carefully controlled for mixing, has been achieved in the new \$750,000 building of the Carboly Co. here, by a year-around air-conditioning system.

The plant is the largest cemented carbide plant in the United States.

The two-story administration building, housing sales, engineering, drafting, purchasing, and accounting departments, is of reinforced concrete, completely air conditioned for summer and winter, with acoustical ceilings in halls and offices.

Conditioning of the building is broken down into three distinct zones. For the "north and east" zone a General Electric air conditioner and 40-hp. condensing unit supplies 14,000 c.f.m. of filtered and cooled or heated air, of which approximately 10% is fresh air.

Construction of the conditioner is such that the cooling coils are segregated into two zones, each controlled by a separate thermostat, so that even control of the temperature may be obtained. The "south and west" zone is supplied by similar equipment, but handles less air.

### CAPACITY REDUCER USED

For these zones the 40-hp. condensing units supplying the cooling are equipped with automatic capacity reducing control, so that when one of the zones is satisfied, the reduced load on the coils is immediately reflected in the suction pressure at the condensing unit, and the machine shuts down to one-half capacity, effecting a saving in power consumption.

Air from the conditioners is supplied to every room through either high ceiling or high wall discharge outlets. All doors are provided with louvers so that return air passes into the hall, where it is picked up by return air ducts and sent back to the conditioner.

The amount of fresh air used is controlled by dampers fixed at 10%, during the cooling cycle, but when it is desirable to ventilate the building and completely change the air, a manual switch is provided to open the dampers wide.

Basement of the administration building, containing a recreation or assembly room and a cafeteria, with complete G-E kitchen, is supplied by a separate conditioner and a 15-hp. condensing unit, operating independently. This supplies approximately 3,000 c.f.m. of air, with provision for 50% fresh air if desired.

### AIR LOCKS IMPORTANT

The powder-metal department, or "metal room" of the factory proper, is reached through air locks, installed to insure uniform operation of the air-conditioning system which closely controls atmospheric conditions in this section. Constant temperature and humidity levels are maintained here for accurate weighing and blending of the powdered metals going to make up Carboly, inasmuch as some of the materials are hydroscopic.

Extreme cleanliness is also essential to prevent contamination of the powdered metals. Equipment in the room includes ball mills, crushers, sifting and mixing units. Temperature and humidity must be maintained for the entire year, on both heating and cooling cycles, at 80° F. and 35% relative humidity.

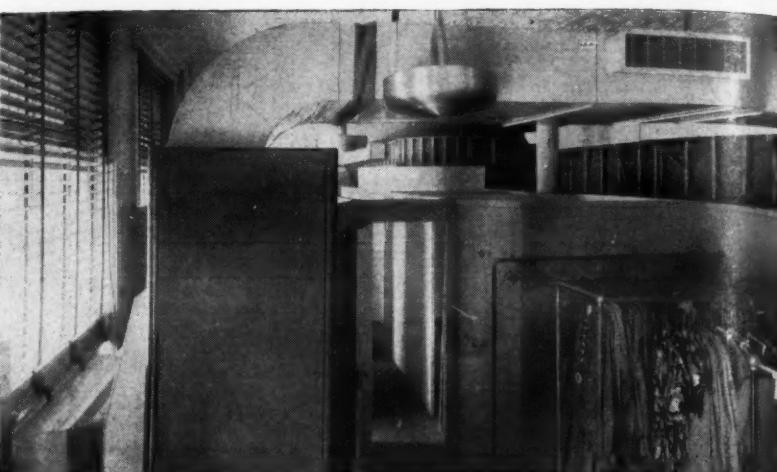
Dehumidifying process is achieved automatically by the temperature of the cooling coils. The control equipment centers about a small Telechron driven relay, which checks both temperature and humidity every minute. In the event that the humidity is high but no cooling effect is required, the condensing unit is started but the steam coil is also brought into operation so that too much cooling does not take place. It is also possible to humidify the air in summer if the outside humidity is below the 30% required.

Indicative of the economy features that have been built into the Carboly plant is the special provision for water and metal salvage. A series of covered trenches built into the floor of the plant directs all drainage water into a special settling tank.

## Self-Contained Units Cool Department Store



Air-conditioned second floor of Globe Department Store. Only outlet grilles are visible.



G-E unit conditioner located in unused stock space. Note supply duct and fresh air connection.

## Unit Conditioners' Advantage Shown By Installations In Scranton Store

SCRANTON, Pa.—Unit air conditioners installed in the Globe Store here made it unnecessary to interrupt business or redecorate to fit the new equipment, and other difficulties usually encountered in a step-by-step program were avoided. Although the original plan called for air conditioning only the second floor, the new system has worked out so well that Globe officials have mapped out a program specifying an installation for the first floor early next year, and, ultimately, air conditioning the entire five-story building.

The program began with the second floor because recent modernization changes there had restricted ventilating seriously. A survey, made by the Scranton Electric Construction Co., General Electric distributor, indicated that a central-plant installation would be impractical. Floor space was found to be inadequate and expense would be prohibitive. Further, the various departments to be conditioned were isolated from each other, complicating the use of a central duct system.

The arrangement decided upon includes six General Electric 7 1/2-ton unit air conditioners and one 5-ton unit, located in stock space behind the selling area. Only ductwork

used is to provide fresh air connections and connect the units with the selling space.

According to the Globe management, the usual objections to air conditioning were entirely eliminated. Only small portions of stockroom space were required for equipment, normal business was not affected during installation, practically no redecoration was necessary, and the period required for installation was brief. Both units and ductwork were easily moved.

Since seven units are in use, there are seven points of thermostatic control. As a result, areas can be conditioned independently as cooling is required.

Four of the unit conditioners utilize an adjustable outside air supply, and at night the fans alone are used to bring in cool night air—resulting in lower cooling cost. In the morning, compressors rarely start for two hours after the store is opened, further reducing operating costs.

Executives of the Globe Store believe that self-contained units are applicable to the usual department store layout, particularly on upper floors, where selling space is often surrounded by stock rooms.

## Sell PACKAGED AIR CONDITIONING



DEALERS: Get the facts about the GR-Lipman line of complete, "packaged" Air Conditioning Equipment . . . portable, self-contained units for year-round air filtration and ventilation; summer cooling and dehumidification. An unlimited market; an outstanding line. Write:

GENERAL REFRIGERATION CORPORATION  
Dept. AC-2 Beloit, Wis., U.S.A.

## Don't "Guess." Don't "Hope."

REMPE's 336 different sizes and types of unit coolers enable you to get just EXACTLY what you need for any installation. REMPE's Engineering Advisory Staff is here to give you the RIGHT answer to the toughest problem.

See us at the Refrigeration and Air Conditioning Exhibition, Booth 60, Stevens Hotel, Chicago.

REMPE CO.  
340 N. Sacramento Blvd., Chicago



**REMPE KNOWS!**  
ask REMPE

# FRIGIDAIRE has that Golden Touch for '40

• Call it glamour, call it "oomph", call it anything you will. It's the distinguishing characteristic that stamps the leader, sets it apart from all others. Frigidaire has it again in 1940!

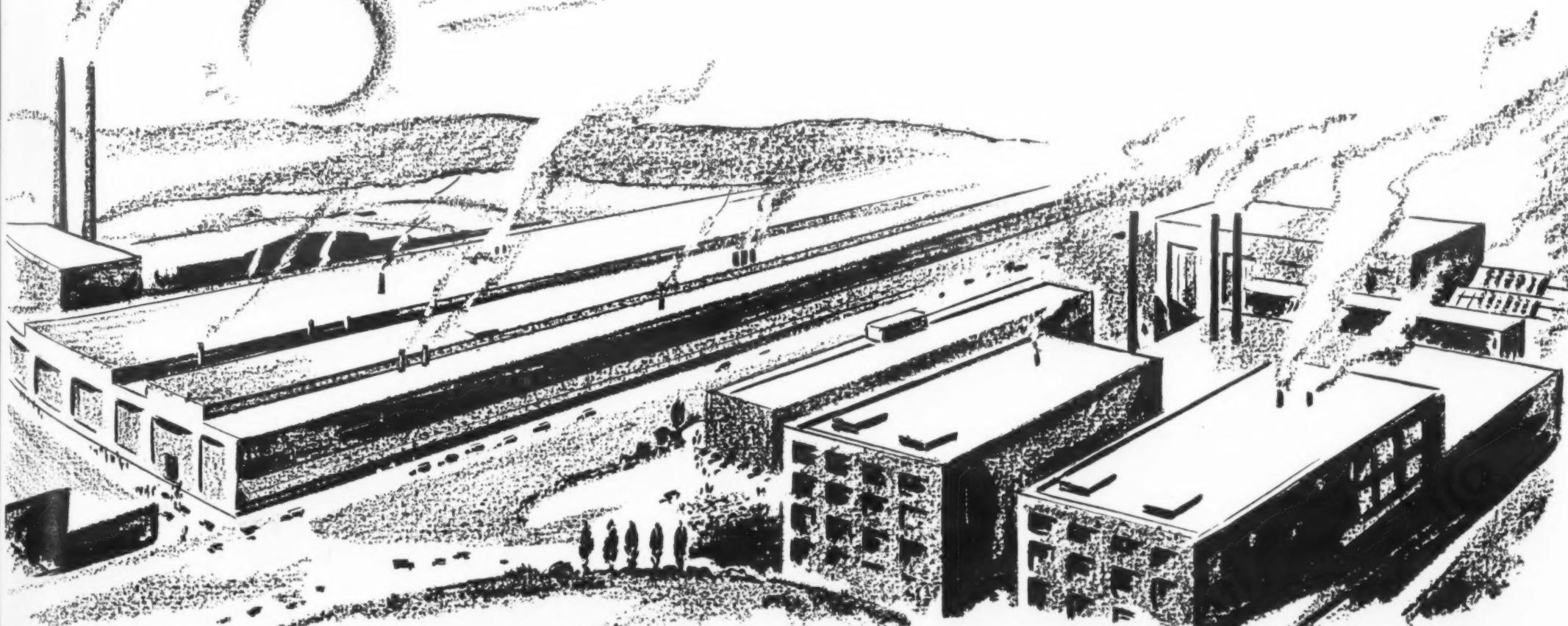
Just picture an eyeful of breath-taking beauty . . . a greater array of selling advantages . . . all high-lighted with exciting new innovations fit to stir the buying pulse of America. The new 1940 Frigidaire Products have selling power!

Yes, it will be a golden year for Frigidaire Dealer's. New Refrigerators and Ranges—new advertising, and selling plans—all are ready for the signal that will send Frigidaire Dealers' sales out in front, and keep them there. . . . It's Frigidaire for '40!

FRIGIDAIRE DIVISION

General Motors Sales Corporation

Dayton, Ohio



# SERVEL Silver Fleet

COMMERCIAL REFRIGERATING MACHINES

"Beauty is only skin deep" . . . but under the lustrous silver surface of these sensational new Servel units, you'll find a degree of performance, economy and noise-



lessness never before available in low-pressure refrigeration. Write today for details. Servel, Inc., Electric Refrigeration and Air Conditioning Div., Evansville, Ind.



## Have You Met the Ansul Twins' New Brother?

This is ICE-X, newest member of the happy Ansul Family. Like the Twins, ICE-X has a job to do, and he does it well. He eliminates ice at the expansion valve, and in capillary tubes.

He gives immediate relief from ice troubles, dissolves formed ice, will not corrode, leaves no residue, does not react with refrigerants or oil. Free of hazard, safe and easy to use. Fully machine-tested.

Ansul ICE-X is equally effective with methyl chloride, methylene chloride, all "Freon" refrigerants. May be used with acrolein methyl chloride. Contains no alcohol, alkali, acid, or other corrosives.

### ANSUL ICE-X

ANSUL CHEMICAL COMPANY, MARINETTE, WIS.

ASK YOUR NEARBY ANSUL JOBBER ABOUT ANSUL ICE-X

# BUNDY TUBING



. . . Wherever great strength and resistance to vibration are required

BUNDY TUBING CO.  
DETROIT

## Specialty Selling Ideas

### All Canvass and No Floor Days Make Sales For 19 Appliance 'Traveling Men'

By Robert M. Price

SCRANTON, Pa.—You've heard that one about the traveling salesman, but here's one about 19 traveling salesmen of W. C. Carter Co. who hit the appliance trail in this territory with no "floor days" in the firm's three stores allowed.

To make the rounds in the many small towns and communities in the Scranton area, the salesmen are provided with 12 trucks. These trucks are large enough to carry the appliances right along for demonstration, and a large number of prospects can be visited every day. The trucks carry side banners of appliance advertising and the name of the store is prominently displayed. The salesmen pay for their own gasoline, and so are not too apt to substitute joy-riding for paying sales trips.

#### KEPT ON THE GO

Each salesman works on a salary, with a bonus based on sales volume. Selling territories are protected so that there is no overlapping of selling effort.

Keeping the men out of the stores and on the move has produced profit dividends, relates R. H. Douglas, the firm's sales manager. He believes that his outside selling force would be "hanging around the store for nothing." His experience has been that floor days produce a string of broken promises.

For prospects who are entered in the prospective business card index, there is a system that encourages the closing of sales outside the store. Salesmen who card the prospects are protected only if the prospect comes into the store by a certain time. After that, the prospect is considered "fair game" for another salesman. In such cases the protected territory bars are relaxed.

#### THEY GET AROUND

As a result the salesmen stay on the job of selling instead of depending on the card index to nurse possibilities into realities, says Mr. Douglas. He has found that by offering his men a salary, increasing the ante with a bonus, and providing his selling force with the automotive means for seeing a great many prospects, the men are given a chance to earn a good income. The proof of his policy is the small labor turnover, he says.

Keeping the men moving toward

#### 'Special' Model Sparks Hotpoint Xmas Drive

CHICAGO—A Christmas promotion on Hotpoint refrigerators, built around a special "Christmas model" unit, has been inaugurated by Edison General Electric Appliance Co., Inc. In addition to increased holiday business on the special model, the drive also aims at boosting sales of higher-priced units and obtaining prospects for early 1940 business.

Special package of sales promotional material prepared for the drive includes a holiday window display, which can be used with any Hotpoint appliance as well as with the refrigerator; a cellophane appliance cover; two wall charts; newspaper mats, folders, and two special Christmas broadsides.

In addition there is a special two-color, self-mailing broadside on the special refrigerator, usable as either window streamer or store poster.

#### . . . And A Little Child Led Them—In Cooking

CHICAGO—Carolyn Ruth, a 10-year-old miss who has been cooking since she was 5 years old, shared the spotlight with Catherine Spengler, one of Commonwealth Edison Co.'s regular home economists during the cooking school sessions held at the home appliance show at the Stevens hotel during the recent observation of Home Appliance Week.

## Emphasizing the Value Of Refrigeration as An All-Year Need

MANSFIELD, Ohio—To stave off the "cool weather" drop-off in electric refrigerator sales, Westinghouse has issued a "Food Safety" fall selling book pointing out the necessity of adequate refrigeration and safe food preservation the year around.

By picture, chart, and text, "Food Safety" shows the consumer that the enemies of food safety—mold, yeast, and bacteria—have no "off" season. These food enemies, the book states, are a constant threat to health the year around, whenever temperature and moisture conditions favor them.

Since their presence cannot be detected by sight, by taste, or by smell, keeping food at the proper temperature for safe preservation is pointed to as the only sure way to avoid these enemies and the damage they can do.

Charts, facts, and figures from such authoritative sources as the Bureau of Home Economics, U. S. Department of Agriculture, and research organizations show how bacteria grows in milk, meat, and other foods at different temperatures prevailing in inadequate preservation conditions.

Made up in rotogravure style, the book is amply illustrated, and uses a minimum of copy to tell the story of the need of proper food preservation in all seasons of the year. The book is available to Westinghouse dealers and salesmen for consumer distribution.

### Meter Plan For Ranges Is Credit Selling's Newest Wrinkle

#### ALWAYS A CONTEST

Such short contests are fitted to the time of the year. Thanksgiving contests, and other seasonal campaigns are used. One favorite is the "crap-shooting" contest. Each man gets a roll on the percentage of dollar volume sold. The highest number of total points rolled on the dice during the week grabs the prize.

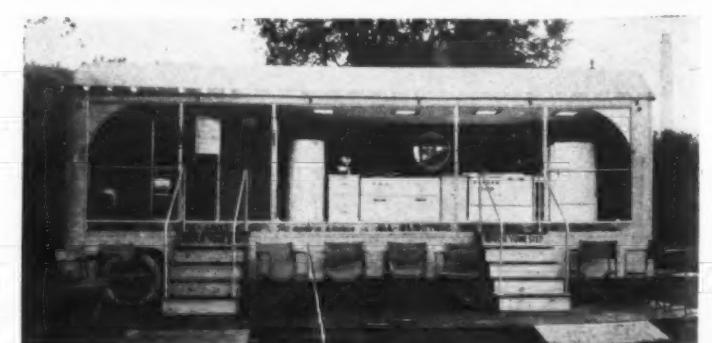
Biggest event of the contest year is the annual "W. C. Carter Day," named for the founder and owner. This year the sales force turned in \$10,421 in appliance business for this single day.

A contest trophy keeps the interest up between campaigns. The salesman who has the most monthly "highs" is awarded this trophy at the end of the year. And with so many chances at prizes, and the big sales opportunities out in the field, the "traveling troupe" of sales drivers agree with Mr. Douglas that mileage produces better sales results than the floor day plan.

### An Electric Kitchen on Wheels



Wisconsin Michigan Power Co.'s electric kitchen promotion program uses this traveling display, which can be hooked behind one of the company's trucks and taken from town to town.



Here is the display ready for visitors' inspection, with its side opened and platform and steps put in place. Refrigerator, range, water heater, and small appliances are in "running order."

## Skinner Asks Drive For 'Down-To-Earth' Weather Reports as Aid To Cooling Sales

(Concluded from Page 1, Column 3)  
parative figures showing the need for air conditioning here on many days of the year.

Mr. Skinner suggested that the City Council establish a weather station on Main St., so humidity meters could record the weather conditions experienced by the average working man and woman, instead of in the "dream world" on top of the New York Telephone Co. building, where weather reports are now taken.

Tracing the progress of air conditioning here, Mr. Skinner pointed out that as of Oct. 1 the local utility company had 157,643 resident electric customers. Of this number, there were 4,185 winter air-conditioning installations, representing a 2% saturation of the market.

"But half of these customers had central heating plants, and by eliminating the stove customers we find actually that the saturation of the market actually is 5 1/2%," Mr. Skinner said.

"In new homes, winter air conditioning has won a wide acceptance, and almost all of these new structures are being equipped with winter air-conditioning systems," he declared.

Discussing summer air conditioning, Mr. Skinner pointed out that up till this time this activity has been confined largely to the commercial field. The local utility company serves 22,300 of these commercial establishments, of which 153 have installed summer air-conditioning systems, the speaker declared.

"Thus it appears that we have just skimmed the cream of the potential air-conditioning market in this area," he added.

Mr. Skinner pointed out that there are 932 restaurants and food establishments in Buffalo, of which 31 have some form of air conditioning; 93 retail jewelry stores, of which four have air conditioning; 89 women's apparel stores, of which four have installations; 32 department stores, of which five have air conditioning; and 19 banks, of which four are air conditioned.

Prominent citizens at the speaker's

### R. C. Jones, Jr. Concern To Occupy Building

NEW YORK CITY—R. C. Jones, Jr., air conditioning and commercial refrigeration installation and service organization, has moved to a new location at 331 E. 28th St. here. New premises cover an entire building, with freight elevator, driveway for company trucks and cars, fully equipped shop, parts department, room cooler storage, drafting room, dispatching room, and general offices.

The company is an authorized service representative for several New York City appliance firms.

### Wage Rate Increases Announced By York

YORK, Pa.—J. H. Vogel, recently appointed general works manager of York Ice Machinery Corp., has announced a 10% increase in the hourly wage rate and a 40-hour week for factory employees in the corporation's manufacturing plants here, as a result of an agreement signed jointly by the management and factory employee representatives.

**Anaconda Copper Refrigeration Tubes**  
Unusually long lengths!

ANACONDA

THE AMERICAN BRASS CO.  
FRENCH SMALL TUBE BRANCH  
General Offices, Waterbury, Conn.

### Rapid-Freezing Method Of Preserving Blood Is Being Proved

PASADENA, Calif.—Successful experiments in preserving human blood over long periods through use of rapid-freezing methods has been reported here by Dr. Alexander Goetz, physicist of the California Institute of Technology, and Mrs. Goetz.

Dr. Goetz reported that they had been successful in lowering rapidly and then raising the temperature of blood, without apparent injury to red corpuscles. This would enable preservation over long periods for use in transfusions.

In their experiments with human blood, the scientists used the same technique which they employed in their cryogenic laboratory several months ago to keep yeast cells, a primitive form of life, at 300° below zero for as long as 100 hours, and then restore them to normal functions.

The blood cells, which are little different from yeast cells, were lowered to 310° below zero in one one-hundredth of a second, Dr. Goetz reported. Later the blood used (about half a drop) was warmed at approximately the same rate. Most of the red corpuscles were preserved.

Samples of normal blood and the blood kept frozen for a period were not distinguishable under the microscope, the scientists reported. Amount used in the test was too small to

determine whether the blood was clinically unchanged, however, they declared. Equipment is now being installed to freeze blood in quantities of a pint or more; and, if the blood thus preserved is effective in transfusions, the experiments will be considered successful.

Dr. Goetz said he is now certain that, if blood can be carried past the freezing point without change, it can be preserved indefinitely. Under present methods, safe preservation is possible only for about five days, it is said.

### Brinkley's To Distribute Frigidaire Commercial

GULFPORT, Miss.—Brinkley's Inc. has been appointed distributor for Frigidaire air conditioning and commercial refrigeration equipment in the Mississippi Gulf coast area.

... We've designed the chatter out of SUPERIOR check valves... you can definitely bank on that!  
... Opens and closes tightly below one pound pressure... Minimum of pressure drop... All internal parts removable for soldering lines to valves, or for future inspection of parts, without removing valve from line.

TRULY—A SUPERIOR CHECK VALVE  
Sold by leading jobbers everywhere... Write for Bulletin RS  
**SUPERIOR VALVE & FITTINGS COMPANY**  
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**Why precision means profitable "B. T. U. dollars"**

Every Brunner Unit is tested for Underwriters' Laboratories Approval and Carries the U. L. Seal

● BRUNNER precision plays a dual role in reducing the cost of commercial refrigeration... First, there's the contribution of precision to performance. All vital parts throughout the Brunner construction are machined to exact fit—cylinders, pistons, bearings, valves. The practical results are markedly reduced friction and wear, minimum losses due to leakage, and greater all-round operating efficiency. And as an added economy, Brunner precision means perfect interchangeability of parts and thus reduced maintenance expense should re-

placements ever be needed... In the manufacturing process, too, Brunner precision promotes economy—the economy of lower first cost. For precision requires simplification and compactness of design, and this demands more efficient manufacture. A more favorable selling price is the natural result... So whatever your refrigerating or air conditioning problem, save "B. T. U. dollars" through Brunner precision. Air and water cooled units from 1/4 H. P. to 15 H. P. Catalog on request. Brunner Manufacturing Company, Utica, N. Y., U. S. A.

**The Symbol of BRUNNER Dependability**

### Humidity Control Used On Hyacinth Bulbs

POEDJON, Java—Escape from the disadvantages of living in the tropics is being afforded to flower lovers of this area through the use of air conditioning to control blooming of hyacinths which formerly burst into bloom as soon as the bulbs from Holland were exposed to heat.

Previously it was impossible to obtain hyacinths except for a short period after the bulb bearing boat from Holland touched port.

A local florist brought the problem to Gebr. Van Swaay, Carrier distributor here. It was decided to build an insulated room at the nursery and to provide Carrier low temperature air conditioning. By controlling the temperature and humidity, bulbs can be "held back."

## AIR CONDITIONING & REFRIGERATION NEWS

Trade Mark registered U. S. Patent Office; Established 1926 and registered as Electric Refrigeration News

Published Every Wednesday by BUSINESS NEWS PUBLISHING CO. 5229 Cass Ave., Detroit, Mich. Telephone Columbia 4242

Subscription Rates  
U. S. and Possessions, Canada, and all countries in the Pan-American Postal Union: \$4.00 per year; 2 years for \$7.00. All other foreign countries: \$6.00 per year. Single copy price, 20 cents. Ten or more copies, 15 cents each; 50 or more copies, 10 cents each. Send remittance with order.

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VOL. 28, NO. 11, SERIAL NO. 556  
NOVEMBER 15, 1939  
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## Public Opinion And Consumers Organizations

BUSINESS men who complain bitterly about the antagonism and skepticism of large sections of the American public—a critical feeling which has found concrete expression in hampering and restricting legislation and Administration policies—are often reminded that they left themselves wide open for it.

By ignoring the possible effects of public opinion, by failing to do an adequate job of consumer education to leaven and explain the constant barrage of high-pressure salesmanship directed to the public, business in general left the gates open for the type of man who can profit personally by organizing and exploiting mass ignorance.

### Business Has Risen To the Occasion Before

Recent elections would indicate that the danger of impracticable "share-the-wealth" schemes such as brought Huey Long and Dr. Townsend to the forefront seems to have passed. One reason is the fine cooperative educational job promoted by business men in California and Ohio. Voters were shown why these moonlight-and-roses schemes not only wouldn't work, but would soon wreck commerce in their states.

At present there is another movement which is growing too fast for comfort, and which cannot be ignored much longer: the organized consumers movement. What was once merely an annoying group (Consumers Research) has now multiplied and spread into dozens of national, hundreds of state, and thousands of local bodies—all highly vocal, stoutly belligerent, and frankly skeptical of business and its methods.

### Professional Busybodies Capitalize on Ignorance

One can have no quarrel, of course, with the right of free men to organize for any purpose whatsoever. But one can quarrel with professional organizers who "see a good thing" in the widespread belief that "something mighty peculiar has been going on in

business," and set out to crystallize this belief into a dues-paying organization which is committed to a definite attitude of antagonism to business.

Just as the labor unions must continue to make demands and call strikes in order to justify their existence, so must the consumers unions continue to "expose" business, "reveal" allegedly shoddy workmanship and second-grade materials, and "secure" special discounts in order to maintain their audience and their dues collections. And then, of course, they can attempt a sort of blackmail, in one guise or another, to collect from manufacturers who want good ratings in their bulletins.

### Competence of 'Laboratories' Open To Question

Many of them in emulation of Consumers Research, set up "laboratories" where materials and products are "tested." These tests and their results are then "confided" to members in bulletins, or in meetings (in the case of local groups). The qualifications of such "laboratories" and "experts" to pass upon the merits of products is, of course, open to serious question.

Manufacturers and distributors report a regular flood of inquiries from these consumers groups in the last several months. These letters demand—sometimes in peremptory tones and even in insulting language—information regarding not only materials and standards of manufacture, but concerning discounts, advertising appropriations, and even salaries of executives.

If they don't get the information, they advise their "constituents" to boycott the product. If they do get it, they use it against the manufacturer anyhow.

### Even Radical Columnist Is Sanely Skeptical

In a recent issue of the Chicago Daily Times (which, oddly enough, is pro-Roosevelt, pro-New Deal, and pro-C.I.O.) Columnist Herb Graffis writes:

"The consumers bureaus are breeding faster than guinea pigs which is the consumers bureaus' generic term for consumers who are not in on the racket."

"The rate of increase of these bureaus is in accord with Barnum's law: a sucker is born every minute, but two sharpshooters to take him are born in the same 60 seconds."

"The consumers bureaus are based on the principle that every guy in the world would marry the same girl, if every guy in the world would accept the only authoritative dope—that which a consumers bureau expert carried under his arm on a gold tablet when he slid down a ladder of light from heaven."

"One nice thing about it all is that the consumers union lads and lassies can't lose. They safeguard their own profits for, while they are hell against the profit system, they don't allow their own customers to run charge accounts."

"Having been a guinea pig for every cute idea from systems for beating crap games to a history of the World War with my name, outfit, and record in sure-enough gold letters on the front cover, the game laws should have protected me against consumers bureau research propositions. But the consumers bureaus thought if I was a sucker for other guys why shouldn't they also take me? There was nothing sporting about it at all."

"So, with more reports than the Brothers Smith have cough drops, I appointed myself the household purchasing agent. What I knew about, of course I couldn't buy, because the consumers bureaus are against that as a fundamental of policy. If you

**They'll Do It Every Time . . . By Jimmie Hatlo**



follow your own judgment and trust to the old acquaintances, what chance is there for a consumers bureau to dip its own mitts into the last few samples of the doomed profit system?

"Well, what I dragged into the little rose-covered cottage was strictly aces in honest, simple merit, performance and thrift—according to the guinea pig herders who were steering me. When the stuff would go sour, and I would argue with the man about it he would say, 'But, my dear sir, for this money do you expect the gadget to be working pretty when the World of Tomorrow's box of relics is dug up?'

"After this went on for a while the wife said to me, 'Are you a man or a guinea pig? You are not going to blow any more dough on the Guinea Pig Protective Assn. because I have been wearing as my best dress a rag which has Pillsbury's Gold Medal label printed right where I sit down. I am going to take the GPPA money and buy myself a chic garment for a stylish stout. What is more, I am going to buy it at a famous modiste's which is practically a clip joint because if it ain't right I can go back there and snot and stomp and they will stand on their heads to square themselves.'

"What can you say to a dame like that? I started to tell her that the consumers bureau books said to beware of faulty materials and that she probably would get trimmed by buying something that is advertised because advertising is an economic waste.

"'Pistachios to them,' she replied. 'Did you ever figure there is more of a money gap between the farmer and our table on stuff that isn't advertised, for instance potatoes and fruit, than there is on the advertised stuff? Smart yourself up, boob, you are being taken.'

Undoubtedly people of better-than-average intelligence will soon discover how they have been duped by the consumer rackets, and have no more of them. The booboisie, however, can be depended upon to trail after the new Messiah until the latter are exposed for the charlatans they are.

### New Deal Politicians Preparing To 'Muscle In'

And in the meantime, there are signs that the opportunist politicians who compose so large a part of our present Administration are laying plans to muscle in on the consumer rackets. If they can all be organized into "one big union," they'd become quite a parcel of votes—the biggest windfall for the Administration since the C.I.O.

The AAA Consumers Counsel, the Federal Trade Commission, the National Bureau of Standards, and Assistant Attorney General

Thurman Arnold are all moving in the direction of "centralized control" of these consumers groups. When that happens there will be, in the good old middle Western colloquialism, hell to pay.

### Handle With Kid Gloves' Considered Poor Policy

Instead of coddling the consumers groups, and handling them with kid gloves lest they exercise their boycott threats, it would seem to be high time for manufacturers and distributors to combat them with every weapon available.

Not only are the consumers groups a menace to business and the continued existence of free enterprise, but they are deplorably exploiting the ignorance of a credulous public. Education is called for, and there should be no delay.

## LETTERS

### Room Cooler Isn't Seasonal Item

Pleasantaire Corp.  
1623 Connecticut Ave.  
Washington, D. C.

Editor:

I was very much interested in your editorial in the Oct. 25 issue of the "News" entitled "Wholesalers vs. Distributors in 1940."

Like every other room cooler manufacturer, we recognize only too keenly that the wholesaler of the aggressive type must remain in our picture if we are to do the proper type of promotion job with dealers and make the unit air conditioner a volume selling appliance. We are, therefore, grateful to you for calling the wholesaler's attention to the fact that the room cooler offers a real item deserving his attention.

I wish it were possible for you to go one step further in your room cooler story by pointing out that this merchandise is not nearly the seasonal item most people think. In the city of Washington, D. C. for example, there were more than 500 units of the Pleasantaire design sold in the past year and 60% of these were sold during cold weather. The answer is that apartment house owners must make their plans far in advance of hot weather, and they can easily be shown how increased occupancy can pay for unit air conditioning in a very short time. Announcement of summer air conditioning by an apartment house owner will frequently pay the air-conditioning costs even before hot weather sets in.

There is no question about the fact that wholesalers in every good sized city can sell hundreds of unit type air conditioners this winter to apartment house and hotel owners if the distributors go out after the business. We have done it in Washington—a city of only half a million people—and we know it can be done almost anywhere else.

RICHARD F. ROPER,  
President

### Harry Thompson Is Coming To 'Old Timers' Reunion In Detroit Nov. 20

Copeland Refrigeration Corp.  
Sidney, Ohio

Editor:

I am indeed grateful for your kind invitation of Oct. 23 to attend the "Old Timers Reunion" in Detroit, the night of Nov. 20, and would have replied before this time, except for the reason that I've been absent from the office the past couple of weeks—attending the Dairy Show in California. I have marked this date on my calendar, and will look forward with pleasure to seeing you at that time.

HARRY E. THOMPSON,  
President

### ... so Is Frank Peltier

Philco Refrigerator Co.  
21st & Northwestern Ave  
Indianapolis, Ind.

Editor:

I will be very pleased to accept your kind invitation to the "Old Timers Reunion" to be held in Detroit on the night of Monday, Nov. 20. Please advise at your convenience relative to the arrangements.

F. D. PELTIER,  
Chief Engineer

### ... and Fred Heideman

Aerflo Cooling Systems  
3380 Mack Ave.  
Detroit, Mich.

Editor:

Thanks kindly for your invitation to the "Old Timers Reunion" on the night of Nov. 20. I shall be pleased to attend. Think it is a splendid idea to get all the Old Timers together.

Turning back the pages and reliving the early days of the Refrigeration Industry, I am sure will provide a very full and happy evening for us all, and as you say, it should establish much historical data which might otherwise remain unrecognized.

FRED J. HEIDEMAN

### ... & Deane Perham

Chicago Master Steam Fitters  
Association  
228 N. La Salle St.  
Chicago, Ill.

Editor:

Thanks for your kind letter of Nov. 2. I am sure that the meeting you are planning will be interesting to everyone and I shall plan to attend.

Kindly let me have the place of meeting and time. Also, what is a comfortable hotel to stay at if I remain over night. Not having been in Detroit over night for a number of years, I am not up-to-date on the hotel situation there.

With best personal regards.  
D. E. PERHAM

## Distributor-Dealer Doings

### Curb on Group Buying By Employees Grows

CHICAGO—Number of companies agreeing to curb "industrial buying" of home furnishings and appliances by employees has doubled since the first of the year, and the number of workers affected by this policy has been doubled, Earl Rusnak, chairman of the committee of trade relations of National Retail Furniture Association, reported at the quarterly directors' meeting during the recent mid-season market here.

Today there are 214 companies employing 2,850,000 persons, lined up against group buying, as compared with 78 firms employing 1,400,000 persons as of the first of this year, Mr. Rusnak said.

William Cheyney, eastern vice president of the association, said that under present cooperation the purchasing of three million families, or more than six million persons, is being returned from "industrial" channels to retail buying outlets. He said, however, that 100 reports of under-cover purchasing at wholesale by employees of large firms still are being received every week at New York City association offices.

The association's drive against group buying is being underwritten by about 400 retailers, Mr. Cheyney reported, and the association is spending about \$25,000 a year on the campaign. Efforts to stamp out discount buying have been initiated in 800 cities and towns, he declared, although principal efforts to curb the practice have been centered in New York City, Chicago, and other large population centers, where it is most widespread.

At the present time, Mr. Cheyney said, the association is negotiating with an additional 200 companies in an effort to have them discontinue the discount buying policy. Assistance in the drive is being furnished by 50 chambers of commerce, eight state associations of retailers, and others.

### Chicago Utility Puts Branch on South Side

CHICAGO—A South Chicago sales district has been formed by Commonwealth Edison Co., and headquarters for this district have been established over the new Edison store at 9025 Commercial Ave.

Bernard G. Harrington has been appointed manager of the new district. He is succeeded in his previous post as head of the Madison district by Max G. Cutter, formerly manager of Roseland district. Joseph B. Vick has been promoted to position of Roseland manager.

### Bennett Sells Appliances From New Basement Store

WISCONSIN RAPIDS, Wis.—George W. Bennett, operator of an Electromaster factory branch store at the Staub Electric Shop for the past several months, has opened a complete electrical appliance store in the basement of the Wood Block. Home economics department is in charge of Mrs. Jeannette Bennett.

### Sage Joins Sanger Staff

DALLAS, Tex.—J. F. Sage has joined the staff of the appliance department at Sanger Bros. here.

### Sales Clinic Gives Salesmen Profit Key

WASHINGTON, D. C.—In a campaign to establish better salesmanship as the key to greater profits, the Electric Institute of Washington has opened a 10-week "sales clinic" with an enrollment of 250 salesmen from the Capital area. Weekly lectures will be given by a salaried director, selected for experience in appliance selling and university teaching.

The school was established to counteract the increased turnover in salesmen, which has become a major problem in retail appliance stores. Enrollment was unexpectedly heavy in view of the fact that salesmen were under no obligation to attend, but signed up on their own initiative.

Principal theme of the course is wrapped around the idea of sales supervision. Lectures are supplemented with practical applications of the principles by local dealers and crew supervisors.

Outline of the course includes the following:

1. Salesmanship in 1939, a psychological preview.
2. What is the nature of the customer?
3. Applying what we know about the customer.
4. An analysis of selling procedure.
5. Preparing to sell.
6. Technique in presentation and demonstration.
7. Terminating the sale—the after-sale.
8. Our use of time.
9. What do we know about the sales personality?

### McBride New Field Man For G-E Ranges, Heaters

MINNEAPOLIS—John F. McBride, who has supervised advertising and promotion on General Electric ranges from headquarters during the past two years, has been named field representative on ranges and water heaters for the company with headquarters here. He will be part of the organization of T. B. Allen, G-E district appliance sales manager in that territory.

In addition to covering the Minneapolis district, Mr. McBride will supervise the sale and promotion of ranges and water heaters in the territory of General Electric Supply Corp. of Kansas City, working with distributors and dealers.

Mr. McBride joined the G-E organization in 1927 to work on central station advertising, and later was with G-E Contracts Corp. in New York City before joining the specialty appliance division in 1937 as assistant to J. R. Poteat, range and water heater section manager.

### Coal Co. To Distribute Winkler Stoker Line

WAUSAU, Wis.—M. & M. Coal Co. has been named direct factory distributor in this area for the Winkler stoker line manufactured by U. S. Machine Corp.

### Krich Shows RCA 'Midgets'

NEWARK, N. J.—New line of RCA-Victor table model radios were introduced here recently by Krich-Radisco, New Jersey distributor for the line. Price range of the new sets is between \$9.95 and \$24.95.

## BUSINESS must MAKE A PROFIT

Our organization has always stood squarely against the "anything-to-get-the-business" policy. We recognize that any business operating on this basis cannot achieve lasting success. Its reputation soon becomes known. The business which it obtains becomes increasingly unprofitable. And no organization which fails to make a legitimate profit can continue to remain in business.

**UNIVERSAL COOLER CORP.**  
DETROIT, MICHIGAN  
BRANTFORD, ONTARIO



The policies expressed in the above advertisement published seven years ago are in no small measure responsible for the progress of this company. These same policies are being followed today.

### N. J. Electrical League To Elect Officers

NEWARK, N. J.—W. S. Davis has been named chairman of the nominating committee for officers of the Essex Electrical League. Other members of the committee include Edward J. White, Robert F. Downing, and Elliot Ranney. Candidates for the 1940 administration will be announced at the league's next meeting, Nov. 16.

Guest speaker at the recent meeting was Charles M. Ripley, General Electric Co. engineer.

### Free Grid Game Sparks Salesmen To Sales Gains

FLORENCE, S. C.—Another version of the "free trip for the winning salesman" idea, this time with a major football game as the goal, is being used by Herb Brown, head of Electric Sales & Supply Co., General Electric dealer here, to spur his men on to greater efforts in the "Time to Change" campaign being sponsored by Carolina Power & Light Co.

### Plumbing Co. Sells Norge

VICKSBURG, Miss.—The Enterprise Plumbing & Metal Works has been appointed dealer in this area for Norge appliances. A full line will be carried.

### Tropical Beach Reward For G-E Radio Dealers

### \$86,000 In Show Sales For Brooklyn Dealers

MIAMI BEACH, Fla.—The Seaboard Silver Meteor streamlined train and the Miami-Biltmore hotel here will furnish the setting for the seventh annual winter vacation trip arranged by General Electric's radio and television department for successful dealers in metropolitan New York and northern New Jersey.

Plans for this nine-day excursion include side trips, tournaments, and parties. The winners will leave New York on Feb. 29. Because more than the streamliner's capacity of 250 persons are expected to qualify for the trip, other trains will be provided to carry the late comers.

Final arrangements for the affair were made by D. W. May, manager of G-E's New York distributing branch, and Earle Poorman, district appliance sales manager.

### Like Father, Like Son In Appliance Business

HEMINGWAY, S. C.—W. I. Jowers & Son has been appointed Philco appliance dealer here. This firm will sell the Philco line exclusively, but will also handle radio service work.

OMAHA, Neb.—Mike Lewis has returned from the south and is now associated with his father, Sol Lewis, General Electric dealer here.

BROOKLYN—Sales amounting to \$86,000 were booked by exhibitors at the second annual electrical exposition sponsored by the Electrical Appliance Dealers Association of Brooklyn in the Knights of Columbus building Oct. 25, Executive Secretary Tom Bolger's compilation of final returns indicates.

About 400 dealers attended the event, at which more than 30 manufacturers and distributors had displays of equipment.

The association has moved its offices to 1271 Bedford Ave. here, where a dealers' display room also is being maintained.

### Walters Joins Wesco Staff In Omaha Branch

OMAHA, Neb.—John Walters has joined the staff of Westinghouse Electric Supply Co. here. He will be assigned to assist dealers in sales promotion and to aid them in creating window displays.

### Dealer Changes Address, Name

BIRMINGHAM, Ala.—Kendrick Maytag Co. has recently moved to 1734 First Ave. N., and changed its firm name to Maytag Sales & Service Co. This is the only dealership in Birmingham concentrating exclusively on home laundry equipment.

## The Preferred METHYL CHLORIDE for Service Work

High Purity and Dryness

Prompt Shipments Coast-to-Coast Distribution

Technical Service Always Available

**DU PONT**  
REG. U. S. PAT. OFF.

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REG. U. S. PAT. OFF.

E. I. DU PONT DE NEMOURS & CO. (INC.)  
The R. & H. Chemicals Dept.  
Wilmington, Delaware  
District Sales Offices: Baltimore, Boston, Charlotte, Chicago,  
Cleveland, Kansas City, Newark, New York, Philadelphia,  
Pittsburgh, San Francisco



## LETTERS

### Hears Uncle Sam Will Be In the War By Next February

F. C. Lovelock  
16-20 Young St., Pty. Limited  
Sydney, Australia  
Everything for  
Refrigeration and Air Conditioning

Oct. 11, 1939

Publisher:

It is some time since I have heard from you. How are you getting along? I hope well and that the international situation has not very materially affected the progress of the NEWS. As far as we are concerned out here, up to date one would hardly realize that there was a war on if it were not for the fact that, owing to the depreciation in the value of the Australian pound, the landed cost of American made articles is very, very high.

As you know, under ordinary conditions refrigeration and air-conditioning accessories landed into Australia at from 130 to 135% over and above the dollar price paid for them in the U. S. A. That was when the Australian pound would buy 3.72 U. S. dollars. Today the Australian pound will only buy 3.10 U. S. A. dollars, with the result that refrigeration items now land into Australia at from 165 to 175% over and above the cost in the U. S. A.

Not knowing how long the war will last, it follows that we do not know how long this state of affairs will exist, but you can imagine what a difference it has made to our possibilities of placing sizeable orders with American manufacturers.

From letters that I have received from various sources in your country, I have gathered that the opinion over there in many quarters seems to be that Uncle Sam will be in the war by about February next, or at the latest, Easter, but of course, if the war ends before Christmas, and there are quite a number of people who think it will, then things may get back to normality again, and everybody will be entirely happy.

Apart from the fact that the war has upset the world generally, it has certainly put a spoke in my wheel as far as my attending the Chicago Convention in January next is concerned. Of course, I am terribly disappointed that I will not have the pleasure and the privilege of being there. I was looking forward to this visit very much; however, we cannot control the activities of such people as Adolph Schickelgruber and we shall have to just take what's coming to us, and can we take it?

Of course, you will be at the Convention with bells on, and I will be with you in spirit, and I know also that you will convey to all concerned my very best wishes.

Another thing I will miss and something that I was looking forward to, is that game of golf with you and Joe Oberc. Well, that will keep, and the delay in my visiting you will give Joe further opportunities for more practice and training for the event. Incidentally, how is Joe faring? I have not heard from him for quite some considerable time.

With the war on we never know definitely when boats are sailing, and consequently when mails are closing; we have been informed, however, that there is a mail closing for America tomorrow, and I am rushing these few lines off hoping to catch it. Would appreciate hearing from you when time and inclination co-incide, and for the time being, kindest regards and all good wishes.

F. E. HANSEN,  
General Manager

*Answer:* As for Joe Oberc's golf, deponent sayeth nothing, but when it comes to oratory, Joe is a whiz. See Nov. 1 issue.

Regarding Uncle Sam and the war, we fear that your informants may be right but hope they are wrong.

It appears that there is strong war sentiment on the eastern seaboard and among some business and financial interests. In the Middle West there is a pronounced mistrust of the entire situation and no enthusiasm whatever for another idealistic crusade to save the world.

### Hole In One!

Detroit Lubricator Co.  
816 South Michigan Ave.  
Chicago, Ill.

Editor:

In your Oct. 11 issue, page 14, I read with interest the ace which Clint Baldwin of Savage Arms made on that "Yah—what is it?" course. I am sure I cannot duplicate his second feat, especially if there is a \$5 wager on it, but at least I feel pretty good about the fact that on the fourteenth of October I got an ace in the fourteenth hole at the Mohawk Country Club, Chicago.

I also used a number 3 iron but the yardage was 180 instead of 165. Maybe I should also mention that the wind was blowing pretty strong and when the ball started out it was not going towards the hole. At the present time I am anxiously awaiting a few cases of beer, which two local breweries give as prizes.

If you are ever in Chicago and have the time, be sure to stop up at our office, which is right next door to the Stevens Hotel. Hope to see you at the All Industry Show at any rate.

BUD MCKEE,  
(Prof. Murphy's poorest product  
of the class of 1930)

### Very Gay Evening —Not Responsible

Dear Miss Johnson:

I have your letter with regard to a card which you say I signed authorizing you to send me AIR CONDITIONING & REFRIGERATION NEWS.

This is to advise you that I have absolutely no recollection of signing any such card, and I do not care to receive this publication. However, on the date mentioned I was at the Electrical Show and if I signed anything there, it was under the influence of a very gay evening, and I do not feel responsible.

Will you please, therefore, cancel any orders presumably signed by me, and oblige.

ALBERT LOPEZ

## Dartmouth Students To Study Distribution

### Cost of Household Refrigerators

#### Has the Business Passed The Specialty Period?

The Amos Tuck School  
of Administration and Finance  
Dartmouth College  
Hanover, N. H.

Nov. 8, 1939

The Sales Management graduate class of The Amos Tuck School of Administration and Finance, Dartmouth College, is engaged in making a careful survey of the electric refrigerator market in the United States. This study has been authorized by the School and is a serious piece of research. In general, the group will try to determine whether electric refrigeration has passed the specialty period and should not be distributed as cheaply as other commodity-household merchandise.

It would be of material assistance to us if we could secure additional data concerning the following subjects:

1. Annual number of household refrigerator sales by states (1925 through 1931; 1938)

2. Per cent of total annual sales which are replacements (1925 through 1936)

3. Saturation point of household refrigerator market (1925 through 1934; 1938)

4. Annual expenditures by manufacturers for service on refrigerators (1920 through 1935)

5. Annual per cent of sales retailed through the following outlets: (Electrical appliance, utility, hardware, mail order, department stores) 1925 through 1938.

We appreciate the fact that you probably will not have all of this material available. We will be grateful for whatever you may be able to give us and if the information is in printed form and for sale, we should like to receive a price list with the data checked that you think is most desirable for our purposes. The findings of the group will be made public and if you are interested, we shall be glad to see that you receive a copy.

Appreciating any help that you may be able to give us.

SEYMOUR S. RUTHERFORD JR.  
For the Group

*Answer:* It is generally assumed in the industry that the household electric refrigerator business is passing through the specialty selling stage, although it is apparent that there is still an opportunity for specialty selling methods in the replacement field. See editorial in Oct. 25 issue of AIR CONDITIONING & REFRIGERATION NEWS, in which this subject is discussed in relation to recent important changes in distribution methods.

We have published several editions of a Refrigeration and Air Conditioning Market Data Book, the last of which appeared in 1935. Copies of this book are still available at a reduced price of \$2.00. In this book you will find complete statistics on sales of household units since the beginning of the industry, and in great detail for the years 1928 to 1935 inclusive.

The market saturation (percentage of wired homes sold) is given by years. You will find similar tabulations and charts covering other types of refrigeration equipment, also other electrical appliances. Expenditures for national magazine advertising by the principal manufacturers are given by years from 1928 to 1934. There is a complete tabulation of wired homes, both urban and rural, by counties and cities.

Since 1935 similar data have been published in the columns of AIR CONDITIONING & REFRIGERATION NEWS and we have a set of reprints, including most of the figures, which will be furnished with the Data Book.

We could also select a dozen or more copies of the News, containing special statistical information, which would probably be helpful to you. Extra copies are 20 cents each.

No figures are available on annual

expenditures by manufacturers for service. We do not know of any way in which accurate data could be obtained.

There are no national figures showing the annual percentage of sales through various types of outlets, although some unofficial estimates have been made from time to time.

You should keep in mind that the established procedure has been for the manufacturer to sell to distributors, who in turn sell to dealers. Manufacturers' figures cover only their sales to distributors and no complete records are kept showing the final disposition of all units or the exact channels through which they have passed. During past years there have been noticeable changes in the trend of marketing methods, such as a decline in the activities of certain public utilities, increased activities on the part of department stores, and most recently, the large volume of business being done by Sears-Roebuck. (This company manufactures its own equipment and sells mainly through its chain of retail stores.)

You can get the best picture of these trends by studying the editorials in the News. These discussions of industry problems are based upon the editor's intimate knowledge and close contact with the field. It often happens that the most significant factors are not revealed by the statistics.

Incidentally, the methods of selling electric refrigerators, based upon the successful experience of numerous dealers, are covered in a book of 128 pages, entitled "Appliance Selling Today." It sells for \$1.00 per copy.

If you can appropriate about \$7.00 from your fund, we will collect a batch of material, including the above mentioned books, various back issues, reprints, etc., and forward them to you.

### Back Issues For Schools

Adult Education Program  
219 E. Court St.  
Kankakee, Ill.

Nov. 8, 1939

Dear Sir:

I wish to acknowledge receipt of your letter of Oct. 21, and wish to state that all class members are procuring manuals, either direct from you or through refrigeration supply companies. Thank you for your direct and logical views on the matter.

Referring to your letter of Oct. 28, 1938 in which was written the following:

"We can furnish you with an assortment of back issues of AIR CONDITIONING & REFRIGERATION NEWS for classroom distribution provided you will pay the cost of transportation by freight or truck. Please let us know if two or three copies each of 15 or 20 issues (more than six months old) will serve your purpose."

I would like to ask if it is possible to repeat your kind offer at that time? Having a new class at the present, I would like to acquaint them with AIR CONDITIONING & REFRIGERATION NEWS and its interesting and informative contents.

F. R. LOCKWOOD,  
Teacher-Adult Education

*Answer:* We will be pleased to send an assortment of back issues of the News to schools offering courses in refrigeration and air conditioning.

### "Listen Boss—

Here's How  
You Can Get  
TRAINED Men"

U.E.L. Free Placement Bureau will put you in touch with a trained, competent worker. U.E.L. trained men have made good as shop mechanics, installation and service men in this industry for 12 years. This service is free to you and prospective employee. Try it.

UTILITIES ENGINEERING INSTITUTE  
404 N. Wells St. Established 17 West 60th St.  
Chicago, Illinois 1927 New York, N.Y.



## LETTERS

### Hears Uncle Sam Will Be In the War By Next February

F. C. Lovelock  
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Sydney, Australia  
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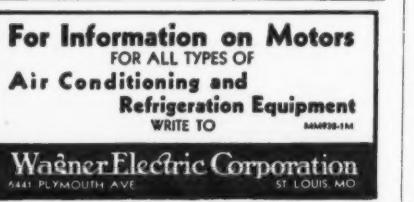
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AUTOMATIC CONTROLS AND SWITCHES  
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Tests Prove it's Completely Waterproof.  
The New SI Small Capacity  
**MAGNET VALVE**  
Alco Valve Co., St. Louis, Mo.



**Finned Tube Products**  
Since 1907 for COOLING,  
HEATING and  
AIR CONDITIONING  
Bush Mfg. Co.  
Hartford, Conn.



For Information on Motors  
FOR ALL TYPES OF  
Air Conditioning and  
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WRITE TO

Waerner Electric Corporation  
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America's Lowest Priced BEVERAGE COOLER  
OPENS NEW SALES FIELD - E.B. MUZZARELLI and COMPANY  
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WILL Make You More Money - Win You More Customers  
Today—See Your Jobber or Write Direct to  
**LARKIN COILS, INC.**  
519 Fair St., S.E., ATLANTA, GA.  
Branch Factory—57 E. 11th St., New York City



—with Thermek Heat Transfer Surface  
1. Raises back pressure of coil and increases compression efficiency.  
2. Utilizes 100% of the coil surface.  
3. Reduces friction in the tubing.  
4. Eliminates oil scrubbing.

IMPERIAL BRASS MFG. CO., 565 S. Racine Ave., Chicago

VALVES • FITTINGS • TOOLS • STRAINERS  
DEHYDRATORS • CHARGING LINES • FLOATS



Every Food Merchant A Prospect!  
For This New Self-Serve Produce Case

It's OPEN! The customer can reach right in—no doors to slide—and embodies a new principle of refrigeration (Pat. appl'd for). Write for details.

SANDERS BUTCHER SUPPLY CO.

2755 W. Fort St., Detroit, Mich.



**FLOOR TYPE UNIT COOLERS**  
-by Marlo  
Self-contained. Self-defrosting. Specially designed for Locker Storage Rooms, Marlo Unit Coolers may be used in any refrigerator—  
For room temperatures 35 degrees and up, water is sprayed over the coil for defrosting.  
For room temperatures 5 degrees to 35 degrees salt or calcium chloride is used for brine mixture for defrosting coil.  
For room temperatures below plus 5 degrees, calcium chloride or any other low temperature brine solution may be used for defrosting coil.  
For cold storage rooms where temperatures and moisture conditions make defrosting a problem.  
Write for new Bulletin 393, and prices

**MARLO COIL CO., 6135 Manchester Ave., St Louis, Mo.**  
Canada and British Isles: Universal Cooler Co., Brantford, Ont.  
Manufacturers of Complete Line of Low Side Equipment

# Is the Display Case Business Drifting Into a Profitless Rut?

## Newcomer To Field Tells How Competitive Methods Forced Him To Become a 'Chiseler'

**MANUFACTURERS SHOULD DEMAND PROFIT ON ALL SALES AS A SOLUTION, HE SAYS**

By Harlan Swisher

Is the Commercial Refrigeration business ceasing to be a profitable business? Is it drifting into a rut, while we stand idly by?

After three years of managing an appliance business, both household and commercial, and of viewing prospects and territory from a desk, I am now in my own commercial business, seeing the prospects and talking to them in the field. Frankly, I am seeing an entirely different picture and not a very beautiful one!

During the last few months I have tried to analyze the commercial business from all angles. I have tried to view objectively my own products, prospects, territory, and manufacturers, as well as those of my competitors. I could write a volume on my findings, but everything points to one fact; unless something is done, the commercial refrigeration business will definitely be in a rut!

### His Territory Typical

First, in order to prove this fact, my territory is no different from any other territory. It is a good farming community, has plenty of towns and cities, and an average number of industries. Competition is probably no keener than in any other territory. Chiselers? Yes. (Maybe I am becoming one.) However, my territory is probably a typical one and presents no problem in itself.

Next, consider my ability as a salesman. At the age of 28 I have had 12 years' experience in selling, nine years of which have been in connection with refrigeration and appliance business. I have sold house to house, shouted my wares from street corners, worked as a sales closer, and finally as manager of a \$100,000 appliance operation. My desire is that I may always be connected with the commercial refrigeration business, in some capacity, as long as it is profitable and has a future.

And, lastly, consider my products and my manufacturers. My products are of the best, as good as those of any of my competitors. My manufacturers are established and reliable, but hungry for business.

### Not Hungry For Business?

The manufacturers may say that they are not hungry for business, that they are ahead of last year, working overtime and hiring new men. But, if they were able to put the manufacturing of commercial equipment on an assembly line pro-

duction, such as household, I wonder if they realize what it would do to the price of merchandise and what new fields would be open for the salesman.

As it is now, the average home-owned store requires new commercial equipment about every eleven years. In order to increase volume, the manufacturer has been forced into financing or endorsing paper for his dealers. We now find all manufacturers endorsing paper and most of them trying to out-promise their competitors.

### Two Case Histories

At this time I shall outline two specific examples from my experience. In the first case, Mr. Smith (name fictitious) purchased a 6 foot case from Salesman "A" for \$600, was given a receipt for \$60 as down payment; yet no money changed hands. There remained a balance of \$540 plus 6% per year finance charge for 36 months, or about \$18 per month.

Salesman "B" called upon Mr. Smith the following day and offered him a 6 foot case for \$500 less a fictitious \$50 down payment, or a balance of \$450 plus 6% for 24 months, making the payments about \$20 per month. He got the order and wired Salesman "A's" company to cancel Smith's order. After Salesman "B" received a credit report on Smith, his company refused the order. Salesman "B" then telephoned Salesman "C" and "C" sold Smith on "B's" terms and delivered, giving "B" a cut of the very small profit.

After checking with Salesmen "A," "B," and "C," I learned that all their companies issued time payment cards, specifically setting the terms at 10% minimum down payment, and payments not to exceed 24 months. Isn't this a Hell of a business?

Then there is the case of Mr. Brown who was in the market for a walk-in cooler. Salesmen "A," "B," "C," and myself were all on the job. We all submitted our prices and were invited back the following Monday at 1:30, none of us realizing that the others were to be there. When we arrived, he announced that the low bidder would get the deal.

I immediately returned to my car. In about two hours my competitors left without an order, but each had left his lowest price. Upon entering, Brown asked me for my best price, telling me that he would like to do

### Better Than Nothing

Whenever I sell a case and it is turned down because of credit, I immediately call salesman "X," and he sells the customer and always delivers. His terms are: no money down, 36 months if necessary, and he obtains no credit report. It seems that we are all operating on the theory that it is better to make a dollar on a deal than to make nothing; and we are hungry for business. But at this rate we will all soon just be hungry!

The manufacturers who belong to the Association all swear by everything Holy that this condition does not exist. But they do not operate with blinders on; yet, what can they do about it?

Our prospects, if cash buyers, are chiefly interested in low price. Time buyers are interested in terms as well as price, and terms especially if they are afraid of the load they are about to take upon themselves.

I find that my prospects haven't nearly as much interest in the product by NAME as the manufacturers would like to believe, but have more or less accepted the idea that practically all the merchandise is good and should give service for a great many years.

### Advocates Liberal Terms

I offer the following suggestions, which, I sincerely believe, will improve the conditions that now exist in the refrigeration business. Throw away the rule book on down payments. (We have practically done this anyway.) Concentrate on the purchaser's honesty, integrity, his ability and willingness to pay. I well realize that with a substantial down payment, it is much easier to collect. However, with the market we are forced to tolerate, how often do we or can we get a substantial cash down payment? By offering more liberal terms we open up a new field for commercial, thereby helping production.

If the manufacturer will continue to offer good merchandise at a low price to the salesman, together with liberal terms, and a demand that the salesman make a fair profit, it will help the manufacturer, the purchaser, and the salesman.

The salesman, if demanded to make a certain profit on all sales, would not be hungry for business, and could be pulled out of the chiseler class, which, today, not only includes the salesman, but also the purchaser and the manufacturer.

The chain store has been largely responsible for making chiselers out of the manufacturers. In some cases they are practically able to dictate to the manufacturer. Certainly the Association could handle this problem. If not, eventually all manufacturers will be building 75% of their merchandise for the chain stores.

### Analyzes Potential Market

What is the potential market for cases and coolers in the average city? Let us take Danville, Ill. as an example. Danville has a population of 40,000 and approximately fifty-two home-owned stores, 25% of whose credit does not warrant purchases, and about 10% who have bought new equipment within the last year.

This leaves about thirty-three stores. Of this thirty-three, some are trying to sell out; some have adequate equipment; some have businesses which do not warrant purchases; i.e., the little man who feels he cannot afford to take a chance on \$20 payments; some are plain damn fools; and there remain about five prospects. All this equals 10 salesmen trying to chisel a dollar or two.

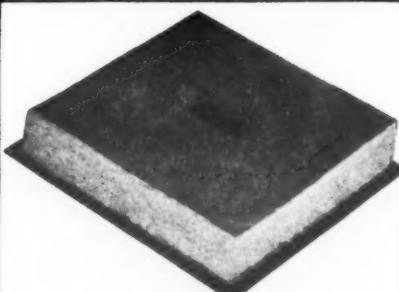
After reading this, you may say to yourself that this article is written by a man failing in his business, or a communist in commercial refrigeration. This is not true. But unless the manufacturer, dealer, and salesman start getting this business out of the rut, we will all be commercial refrigeration communists at heart!

## Why manufacturers are using BOUND-BATT

**This new kind of Dry-Zero gives 3 advantages • Lowers Material Costs, Shortens Assembly Time, Cuts on the Job.**



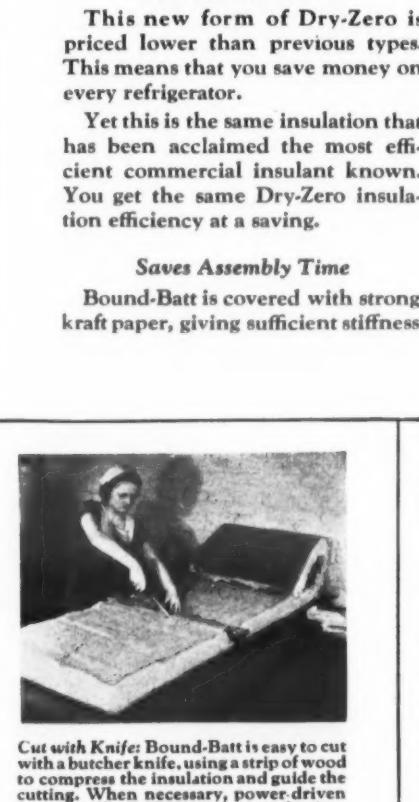
**Rolls Save Money:** For low production schedules, Bound-Batt may be purchased in rolls, stored until needed, and then cut to size. This prevents unnecessary delays and saves pre-fabrication costs.



**Sealing Flange:** Cut-to-size Bound-Batt can be furnished at lower cost than previous forms of Dry-Zero. The sealing flange saves time in assembly. It is preferred for heavy production schedules.



**Easy to Handle:** Assembly time is kept at a minimum because Bound-Batt is stiff enough to handle, yet flexible enough to fit irregular contours. The edges are held in place by the Dry-Zero binder.



**Cut with Knife:** Bound-Batt is easy to cut with a butcher knife, using a strip of wood to compress the insulation and guide the cutting. When necessary, power-driven cutters can be used to speed up production.

for easy handling. Yet it is flexible enough to fit easily into any shape corner or over irregular contours.

You can specify Bound-Batt cut-to-size with sealing flanges attached if desired. On heavy production schedules this shortens the time required for moisture sealing.

### Saves in Fabrication

If you stock Standard Rolls of Bound-Batt you can cut the insulation to suit your production schedule.

This means there is no delay in insulating special size units. The supply of insulation can be kept at minimum requirements. Most important, cutting from rolls at the time of assembly will often show considerable savings.

Send the coupon for complete information about Dry-Zero Bound-Batt insulation.

**DRY-ZERO CORPORATION:** Send Complete Information, Prices, and Sample of Bound-Batt Insulation.

Name \_\_\_\_\_

Company \_\_\_\_\_

Street \_\_\_\_\_

City, State \_\_\_\_\_  
1111

**DRY-ZERO  
Bound-Batt  
Insulation**

Dry-Zero Corporation  
Chicago: 222 North Bank Drive  
New York: 60 East 42nd Street

**WOLVERINE REFRIGERATION TUBING IS MADE CLEAN, SEALED CLEAN, SOLD CLEAN. AT YOUR JOBBER'S.**

**WOLVERINE TUBE COMPANY**  
1413 CENTRAL AVENUE DETROIT, MICHIGAN

The most efficient commercial insulant known



# A Uniform Accounting System To Meet the Current Needs Of the Appliance Dealer

## Record Forms Are Designed To Handle Such Items As Finance Charges, Taxes, and Inventories

By R. E. Lindquist, of Associated Accountants, San Francisco, and J. M. Ruggiero, Manager, General Electric Contracts Corp., San Francisco\*

**Editor's Note:** The following article outlines a uniform accounting plan for electrical appliance dealers. It was written by R. E. Lindquist of Associated Accountants, San Francisco, and J. M. Ruggiero, manager, General Electric Contracts Corp., San Francisco. This information originally appeared in the "Pathfinder Service Bulletin" published for public accountants by the Charles R. Hadley Co., manufacturers of accounting forms and bookkeeping equipment.

Forms used by the authors to illustrate their article are Pathfinder standard 11 x 11 inch accounting forms, which are available from any of the Charles R. Hadley Co. offices.

Mr. Ruggiero, after much study of the accounting "tools" needed by the appliance dealer to cope successfully with present-day problems, believes that the system of accounting described here is complete enough to meet current laws, and yet simple to operate.

As you enter the doors of a large machinery distributor in San Francisco your eyes immediately fall upon a bronze plaque on which is inscribed the following:

"No man can use yesterday's tools today and expect to succeed tomorrow."

One of the most important tools in modern business, with all its complexities and uncertainties, is the accounting system. The business man needs accounting as much as the tailor needs a pattern, the builder needs his plans, or the carpenter his blueprints.

The old practice of taking inventory once a year in order to determine whether a profit has been made or a loss sustained is fast becoming obsolete. The business man of today wants current information. He wants that information in a comparative form so he can tell how it compares with that of a month ago, or a year ago.

## Many Reasons For Modern Tools

At the present time, more than at any other, it is obvious that the appliance dealer must base his action and decision regarding his future policies upon the experience of past performances as shown by properly classified records. He must not rely on memory.

It is the accounting system that provides the owner of a business with classified summaries of business operations at such frequent intervals that they can serve as an effective aid to proper control and sound management. The appliance dealer needs, and the accounting system can give him, a diagnosis of recent and present conditions by which he is enabled to control and measure business operations instead of being limited to the capacity of his memory as he would be if there were no records on which to rely.

Recent increased demands due to legal requirements of local, state, and federal agencies make it imperative that accounting records be kept to facilitate the preparation of numerous returns for Sales Tax, Unemployment Insurance, Old Age Pensions, Income Tax, etc.

The two-fold aim of accounting is to keep current records which show what the business owes others, and what others owe it, and to show the results of the business as they exhibited an increase or decrease of capital investment.

With proper records the business man is enabled to determine the reason for conditions of his business and he is then in a position to strengthen the weak points and aid in the development of the strong features. Also, from a study of the classified information he is able to determine the future course of action. If, for example, the results show that a previous advertising campaign

\*From Pathfinder Service Bulletin—No. 124.

accountant examining and following through this system.

The capital accounts as shown on the chart are those for a sole proprietorship. In cases of a partnership or corporation the customary accounts would, of course, be substituted.

We have provided the following basic records:

1. Record of Sales (Exhibit 2)
2. Record of Cash Received (Exhibit 3)
3. Record of Invoices or Vouchers (Exhibit 4)
4. Record of Checks Drawn (Exhibit 5)
5. Stock Ledger (Exhibit 6)
6. Record of Journal Entries (Exhibit 7)
7. General Ledger
8. Accounts and Contracts Receivable Ledger
9. Accounts Payable Ledger (Optional)

All of the above records of original entry, as well as the Stock Ledger, are illustrated and will be readily understood by the accountant.

## Merchandise Costs

Major appliance sales should be costed individually as shown on the Sales Record Exhibit 2, and charged and credited to the accounts indicated. Other merchandise sales may be costed individually or an average percentage may be applied from month to month which can be checked from time to time as physical inventories are taken. In the illustration we have used an average of 60% cost. In either case the postings will be the same as indicated.

## Merchandise Trade-Ins

Used merchandise traded in by customers should be recorded in connection with the sale upon which the allowance is made. This is done by charging the trade-in allowance to the merchandise account.

In the instance where the trade-in allowance contains an element of discount or sales allowance, the merchandise account should be charged with the value of the used article and the remainder charged to Sales Allowances. This is illustrated by entries on the Record of Sales.

## Repossessions

When an appliance is repossessed, and it is necessary to pay to the finance company the remaining balance of the customer's contract less the adjustment of the finance charges, the procedure is as illustrated by the last entry on the Check Record, Exhibit 5. Under this method, the value of the merchandise to the dealer is charged to the merchandise account and the balance is charged to Repossession Losses and Expenses.

## Cash Received and Deposits To Bank

The method illustrated on the Record of Cash Received, Exhibit 3, is to charge the amount of cash received to Cash, Account No. 3, and then, for the total of bank deposits, to charge Bank, Account No. 2 and credit the same amount to Cash, Account No. 3. This procedure may be short-cut by charging the Bank, Account No. 2, direct.

## Net Remaining Balance of Contracts Receivable

An account is set up in the Accounts and Contracts Receivable Ledger to which is charged all contracts discounted with the finance company at the net remaining balance, as illustrated on the Record of Sales. When the check is received from the finance company in payment of the contract, this account is credited with the amount of the contract, completely offsetting the original charge entry. The deductions made on the check received will, of course, be charged to the respective accounts as illustrated in the Record of Cash Received, Exhibit 3. You will note that the cash down payment is charged to the cash account and is handled in this way for convenience.

No provision is made in this system to record and control the amount of unpaid contracts in the hands of the finance company. While theoretically this should be done, from a practical standpoint it is usually unnecessary to do so. The amount of unpaid contracts can be obtained at any time from the finance company.

## Finance Charges

Account No. 131 will be credited

with all finance charges added to contracts, as illustrated on the Sales Record, and will be charged with the deductions made by the finance company for these amounts when discounted with them, as illustrated on the Record of Cash Received. These entries should offset each other.

Any credit balance appearing in Account 131 at the end of any month or period as a result of certain charges not going through the records until the next period should be shown as a deduction from Accounts and Contracts Receivable on the Balance Sheet.

## Record of Invoices or Vouchers

All invoices or vouchers for expenses as well as merchandise purchases should be entered on this record, Exhibit 4, if they are to be paid in a period subsequent to that in which incurred. If a subsidiary Accounts Payable Ledger is not to be maintained, the items in the Record of Invoices or Vouchers should be marked when paid. The

open items will represent the accounts payable, the total of which will agree with the control account in the General Ledger.

## Stock Ledger

All major appliances may be listed on one continuous sheet, as illustrated on Exhibit 6, or a separate sheet may be used for each type of merchandise. Articles sold should be marked as indicated, the total of the unsold items agreeing with the major appliance inventory account or accounts in the General Ledger.

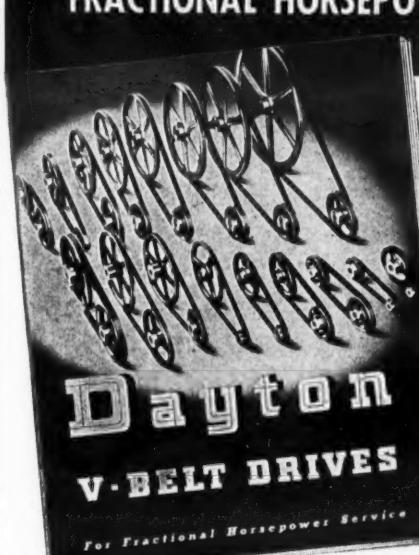
## Adaption To Firms of Varying Sizes & Conditions

The system as outlined may readily be adapted to dealers doing considerable volume and desiring to classify sales into various classifications of products, or into departments, simply by the use of analysis ledger leaves in the General Ledger and Records of Original Entry with columns providing space for symbols as well as amounts.

**\$5.00 won't buy it—**

**But it's FREE TO YOU**

THIS NEW **Dayton**  
FRACTIONAL HORSEPOWER CATALOG No. 150



Here's an engineering omnibus for users and designers of all types of household appliances and small machinery.  
Instantly selects without calculation the drive for any small machine.  
Contains over 165,000 drive combinations in the belt drive tables alone.  
All fractional horsepower ratings! All speed ratios! Any center distance!  
Gives dimensions, prices and essential engineering data together with complete list of Fractional Horsepower V-Belts and V-Pulleys.  
Lists variable Pitch Pulleys for all Fractional Horsepower V-Belts.  
Lists standard pulley combinations in sequence of pulley sizes.  
Compact, practical, saves time, trouble and grief.

Dayton Fractional Horsepower V-Belts are made in three standard sections in a complete range of lengths to meet all conditions of small machinery service. They are being used on everything from oil burners to office appliances . . . from stokers to shoe machinery . . . from compressors to coffee mill machinery . . . for household pumps, display fixtures, laundry, textile, tanning machinery and for hundreds of other uses. So, whether you make or use small machinery or household appliances, remember that \$5.00 will not buy the Dayton Catalog No. 150, but it is yours free.

Write for it today!



**Dayton**  
V-BELT DRIVES WITH DAYTEX CORD

MADE BY THE WORLD'S LARGEST MANUFACTURER OF V-BELTS

D

Whether for fractional or a thousand horsepower there is a Dayton V-Belt Drive for the job.

Condensing Units for every commercial refrigeration and air conditioning requirement . . . Also packaged air conditioners.



Established  
1854

Curtis Refrigerating Machine Co.  
Division of Curtis Manufacturing Co.  
1912 Kienlen Ave., St. Louis, Mo.

### DISPLAY CASES



Write for details of  
this exceptional new  
100% PORCELAIN  
Display Case line.

MIDWEST  
MFG. COMPANY  
Galesburg, Illinois



**QuiKold**  
BEVERAGE COOLERS  
10 MODELS  
WRITE FOR  
CATALOG  
S&S COOLERS  
LIMA, OHIO

### THE PROFIT LINE FOR '39

Refrigerator and Compressor sales go together. SHERER offers a complete line of cases, coolers and boxes to be sold with your compressors.

Write for catalog and franchise details, mentioning territory desired.

**SHERER-GILLET CO., Marshall, Mich.**  
Manufacturers of Refrigerated Display and Storage Equipment

**ACE HARD RUBBER LOXIT DOORS AND COMPLETE ASSEMBLIES**

Odorless, vermin proof. No warping or splitting. Easily installed in openings. All sizes available.

AMERICAN HARD RUBBER COMPANY  
11 MERCER STREET, NEW YORK, N.Y.

WRITE FOR FREE CATALOG



### Chieftain

Have you tried the "Heavy Duty" line?

**TECUMSEH PRODUCTS CO., TECUMSEH, MICH.**

Canadian distributor: Refrigeration Supplies Co., Ltd., London, Ontario

**HENRY ABSO-DRY**

Hear 'Em Hiss-S-S-S!  
PRESSURE SEALED-  
DEHYDRATOR

Flanged shell construction simplifies re-filling. Vacuum dried and pressure sealed. Distortion-Proof flange, dispersion tube and dehydrator compression spring. Choice of 4 dehydrants. Complete size range.

TYPE 716

WRITE FOR CATALOG

HENRY VALVE CO. 1001-19 N. SPAULDING AVE. CHICAGO, ILLINOIS STOCKED BY LEADING JOBBERS

### MASSIVE SEALING POWER!

An outstanding feature of the Kason Latches is their massive sealing power. They seal the refrigerator door air-tight with each simple operation and conserve refrigeration by stopping costly air-leaks.

**KASON HARDWARE CORP.**



become the standard quality latch of the industry. There is a Kason Latch for every refrigerator need. Write for catalog.

127-137 WALLABOUT ST.  
BROOKLYN, N.Y.

No. K-40A  
(REDUCED SIZE)

No. K-40A has served commercial refrigerated display cases for more than a decade with such a high degree of perfection that it has

too much. Capillary tube must also be clear of cold surfaces.

#### Detection:

A. Warm power element and capillary tube with your hand. If power element is too cold this will temporarily correct trouble. Then rearrange valve location.

#### 10. Expansion Valve Adjustment

The thermostatic expansion valve is probably the most misunderstood part of the refrigerating system. As a matter of fact, its function is extremely simple. It keeps the coil completely refrigerated. Always keep that in mind when servicing a system.

Adjustment of the valve merely floods or starves the evaporator. Expansion valves seldom change their adjustment of their own accord. When a system which has been operating satisfactorily suddenly changes, the chances are that the expansion valve adjustment has not changed but something else has gone wrong.

Always check everything else before attempting to adjust the valve. If a small turn does no good it is good assurance that something else is wrong.

#### Method:

A. Open valve so as to slightly flood evaporator; then turn back until evaporator is completely refrigerated without any flooding over into suction line.

B. Detroit valves are accurately adjusted at the factory so as to maintain the coil completely refrigerated. Valves can be checked in the field by using the test set-up described at the end of this article.

#### 11. Feeler Bulb In Wrong Location

Bulb should be clamped to suction line at end of coil and must be unaffected by room temperature. Use sufficient drier tubing between bulb and outside air to prevent heat from flowing into the bulb and forcing the valve open during the shut-down period.

Where several coils connect into a header the connections between bulbs and header must be long enough to prevent one coil from affecting the others.

Where an air current flows over the bulb it should be shielded by wrapping with sponge rubber.

Trouble of this nature often shows up with a change in the outside temperature. An improperly placed feeler bulb may get by unnoticed during mild weather and then cause a flood back during hot weather. Also, the job may be satisfactory during hot weather and an improperly located bulb cause starving of the coil during mild weather.

#### 12. Expansion Valve Leak

The expansion valve should close during the shut-down period. A leaking valve will cause the evaporator to fill up during the off-cycle and flood back at the start of the on-cycle.

#### Detection:

A. After checking bulb location, adjustment, and possibility of freezing, remove valve and check on test set-up described later.

#### 13. Evaporator Too Small

When evaporator is too small or airflow over evaporator is insufficient, it causes low suction pressure, insufficient refrigeration, long running time, and excessive frost.

#### Detection:

A. Make sure that evaporator is completely refrigerated.

B. Check airflow for obstruction.

C. Check pressure control for proper cut-out point.

D. Check load against manufacturer's rating for evaporator.

#### 14. Compressor Location Too Cold

Compressors located in open basements may become colder than the fixture being refrigerated. Pressure in the receiver then becomes too low to force refrigerant into evaporator. Pressure switch may not cut in or if it does evaporator may be starved.

#### 15. Compressor Too Small

Causes long running time or high suction pressure. Always check for other causes that might affect compressor capacity such as leaking valves, obstructed condenser, excess or shortage of refrigerant.

(Continued on Page 15, Column 1)

## CLASSIFIED ADVERTISING

### SALESMEN WANTED

DEALER DESIRES commercial refrigeration salesman, car necessary, experience required, drawing account, car expenses, liberal commissions, write qualifications. WILLIAM B. STOCK, Frigidaire Sales & Service, 201 S. George St., York, Pa.

### FRANCHISES AVAILABLE

COMPLETE COMMERCIAL Refrigerator line. Porcelain corkboard display cases, reach-in, walk-in and sliding door, full vision fruit and vegetable refrigerators. Originators of open top refrigerated vegetable cases. Full line extra-liberally collared. Percival-Universal units. Established 1886. 53 years of service. C. L. PERCIVAL COMPANY, Des Moines, Iowa.

SEND FOR PRICES and literature on the General 1940, all streamlined refrigerator display case. Over 40 years' experience manufacturing good commercial display cases. On a comparative price test with other makes of equal specifications, prices are lowest in the country. GENERAL REFRIGERATOR & STORE FIXTURE CO., 519 Bainbridge St., Philadelphia, Pa.

COMMERCIAL LINE refrigerator display cases, walk-in coolers, and refrigerators; also direct draw mechanically cooled beer coolers. Sell with Ehrlich Compressors or with any other make. Attractive discounts also financing arrangements to help sell. 70 years in business. Write for full information. EHRЛИCH REFRIGERATOR MFG. CO., St. Joseph, Mo.

### EQUIPMENT FOR SALE

MANUFACTURER of "Freon," window type room air conditioning units wishes to dispose of a limited number of brand new 1939 models, AC, 60 cycle, 110 volts;  $\frac{1}{2}$  H.P. size, list price \$129.00, less 50%;  $\frac{1}{2}$  H.P. size, list price \$229.00, less 50%; larger discounts on quantity orders. Write Box No. 1187, Air Conditioning & Refrigeration News.

BRAND NEW complete high sides;  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{3}$ ,  $\frac{1}{2}$  h.p. General Electric compressors with General Electric motors; Frigidaire compressors with Delco motors. Low prices, money back guarantee. MARTIN SPECTOR, 520 East 20th Street, New York City.

BRAND NEW 1939 model 6 ft. refrigerator cabinets at \$20.00 each, Chicago, also quantities of domestic cold controls, evaporators, belts, cords, ice cube trays, motors, at low prices. G. & E. BROKERAAGE CO., 444 West Grand Ave., Chicago, Ill.

### REPAIR SERVICE

G. E. DR1-DR2-\$30.00; Domestic Westinghouse \$27.50; one year unconditional guarantee. Place order for any model G. E. or Westinghouse sealed unit. Shipments will be made from stock same day. Return old unit later. Our production line turns out completely rebuilt sealed units mechanically comparable to manufacturer's with replacement service inferior to none at prices that enable you to realize profit on resale. Send for Complete replacement schedule. REX REFRIGERATION SERVICE, INC., 226 S. State, Chicago, Ill.

DOMESTIC TYPE thermostatic controls reconditioned like new. Precision work by experts. Years of satisfied customers among largest in the country. All work guaranteed. Try us and be convinced. The largest thermostatic repair service in the country. It's your guaranteed Prices on request. UNITED REPAIR CO., INC., 342 W. 70th St., New York City.

GENERAL ELECTRIC DR-1 and DR-2 Monitor Top units exchanged \$27.50. Also 1931, 1932 and 1933 Westinghouse units single evaporator. We pay freight in. Write for exchange unit giving model. We will immediately ship C.O.D. \$32.50 an exchange unit rebuilt in the largest reconditioning plant in America. Not specially designed crate eliminates necessity of crating old top. Simply place your old top in our crate, return to us, and we will rebate \$5.00 deposit to you. ASSOCIATED REFRIGERATOR PLANT, INC., 3028 W. Hunting Park Ave., Philadelphia, Pa.

CONTROL REPAIR service. Your controls repaired by expert mechanics, with special precision equipment. Supervised by graduate engineers. We stress perfection and dependability before price. One year guarantee on domestic controls. Any bellows operated device repaired. HAILEY LABORATORY, 1793 Lakeview Road, Cleveland, Ohio.

GENERAL ELECTRIC DR-1, DR-2 Monitor Top units exchanged \$27.50 F.O.B. our factory. Send your defective unit. On receipt we make immediate shipment of completely rebuilt, refinished unit with one year guarantee. Like new in every respect. Westinghouse and other hermetically sealed units, prices on request. GENERAL REFRIGERATION MAINTENANCE, 220-22 West Huron St., Chicago, Ill.

### ADVERTISING SERVICE

COPY FOR magazines, newspapers, circulars and catalogs is scientifically prepared for manufacturers and wholesalers at reasonable rates—by experienced advertising and sales engineers. Our service includes copy, lay out and art work preparation for good advertising. (Muñozarelli advertisement this issue—our work.) Write: CONSOLIDATED ADVERTISERS, 3520 Cherry St., Kansas City, Mo.

### PATENTS

HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. H. R. VAN DEVENTER (ASRE), Patent Attorney, 342 Madison Avenue, New York City.

## Chart For Air Conditioning and Commercial Systems Using Thermostatic Expansion Valves & Controlled By Pressure Switch

SYMPTOMS				
Condition of Job	Evaporator Condition	Running Time	Suction Pressure	Suction Line Temp.
Warm	Warm	Won't start	Low	Warm
Warm	Warm	Continuous	High	Warm or normal
Warm	Warm	Short cycles or won't start	Low	Normal or cold
Warm or normal	Starved or partly refrigerated	Short cycles	Low	Warm
Warm	Cold	Short cycles	Low	Normal or cold
Normal or cold	Flooded	Too long	Normal or high	Flooded
Normal or too cold	Cold	Continuous or too long	Normal or low	Normal

PROBABLE FAULT				
Transient Faults (Failure of Equipment)	Key to Paragraphs	Design Faults (Incorrect Design or Installation)	Key to Paragraphs	
Complete loss of charge.....	1	Compressor located in cold place .....	14	
Strainer or liquid line clogged..	5			
Expansion valve lost charge....	8			
Expansion valve badly out of adjustment .....	10			
Shortage of refrigerant.....	1	Compressor too small....	15	
Too much refrigerant.....	2			
Compressor valves leak.....	3			
Condenser obstructed .....	4			
Suction line restricted.....	17			
Shortage of refrigerant.....	1	Loss in liquid head.....	6	
Strainer or liquid line clogged..	5	Bulb in wrong location..	11	
Expansion valve frozen.....	7	Valve in wrong location..	9	
Expansion valve out of adjustment .....	10	Liquid line too small....	5	
Expansion valve lost charge....	8	Compressor located in cold place .....	14	
Air flow over evaporator obstructed .....	13			
Evaporator too small....	13			
Evaporator surges .....	16			
Expansion valve out of adjustment .....	10	Bulb in wrong location..	11	
Expansion valve frozen.....	7	Insufficient drier loop....	12	
Feeler bulb in poor contact....	11			
Expansion valve leaks.....	12			
Shortage of refrigerant.....	1	Compressor too small....	15	
Too much refrigerant.....	2			
Compressor valves leak.....	3			
Condenser obstructed .....	4			

### Some Evaporators Cause Refrigerant To Surge

(Continued from Page 14, Column 4)

#### 16. Evaporator Surges

It is now generally recognized that certain evaporators cause refrigerant to surge and give erratic results. Long lengths of large diameter tubing seem to cause most trouble of this type. Display case coils are often of this nature. The slow velocity in such coils permits refrigerant to accumulate and then surge out.

This condition can often be improved or corrected by using an expansion valve with small size orifice. The smaller orifice size prevents over-feeding of refrigerant during the periodic opening and closing of the valve caused by the surges. The small orifice, therefore, tends to smooth out surges on coils which are subject to this type of fault.

Use plenty of drier coil to keep suction line dry.

#### 17. Suction Line Obstructed

It is a common occurrence for ice to form in the clearance space

between a copper tube and a flare nut on the end of the evaporator. Continued frost-back may likewise cause freezing to damage joints at other points along the suction line.

After repeated freezing the ice often expands to such an extent that the tube becomes restricted or completely blocked off. Usually the damage is not visible from the outside and is, therefore, difficult to locate.

Another form of suction line obstruction which has occasionally occurred is the formation of a solid ice blockade inside the suction line near the evaporator or in the evaporator tube itself. Needless to say, such formation can happen only where an excessive amount of moisture is present.

Any type of suction line obstruction causes the pressure within the evaporator to be higher than the gauge reading at the compressor. This condition causes short cycling or, if the line is completely blocked off, it may prevent sufficient build-up in pressure to start the compressor.

(To Be Concluded)

### Virginia Smelting Men Report Export Boom

(Continued from Page 1, Column 1) history, with all sections of the country represented.

Other conference speakers were Charles W. Johnston, general manager of plant operations, who outlined the history of the company since its founding in 1889, and A. K. Scribner, assistant manager, who have a dramatic presentation of the uses of sulphur dioxide in industries other than refrigeration.

Seventy-seven year old W. T. Gilchrist was the guest of honor at the banquet which was held the first evening of the conference at the Portsmouth Country Club. Mr. Gilchrist is the oldest living member of Virginia Smelting Co., and has been connected with it since its founding.

Among those present were: A. H. Eustis, F. A. Eustis, F. W. Binns, R. D. Malcolm, P. Cushing, J. Kennedy of Boston; J. R. Eldridge, F. H. Hadley, G. A. Anderson, and C. H. Throm of New York; W. C. Dever, Detroit; F. E. Strauch, Chicago; A. Valley, Cleveland; W. B. Arbuckle, Houston; E. V. Dunbar, Atlanta; A. W. Barber, Des Moines; C. W. Johnston, A. K. Scribner, Robert L. Baron, W. P. Hilton, H. B. Channon, R. H. Israel, and L. J. Hitch of West Norfolk.

### Philco Has 'Package' For Finish Repairs

PHILADELPHIA — A complete package of finishing materials for repairing any kind of damage to Dulux or porcelain finishes, especially on refrigerators, has been made available to distributors of Philco Conservador refrigerators by Philco's parts and service division.

This package, intended primarily for use by dealers and service men, contains six 4-ounce cans of repair materials, including two types of lacquer that can be blended to match white Dulux of any age, black lacquer, filler, thinner, and rubbing compound. An instruction sheet covering all types of refinishing repairs also is included.

### Great Lakes Association Of Locker Plants Is Aim

LANSING, Mich.—Possible nucleus of a Great Lakes Locker Plant Association is the association of Michigan locker plant operators which was formed here recently.

Tentative plans for such an interstate group, which would serve as a sort of parent body for all individual locker plant organizations in states bordering on the Great Lakes, already have been launched under the guidance of C. A. Sutliff, manager of Capital City Locker Plant in East Lansing.

No definite steps toward formation of the Great Lakes association will be taken, however, until at least two of the independent locker organizations in this area agree to collaborate.

The Michigan operators, in addition to discussing this potential widening of the locker movement, elected officers for their own group and appointed committees to prepare by-laws, select a name for the state association, and handle other organizational details.

Officers elected for the Michigan association are: John Oswald, Lansing, president; D. E. Younker, Lapeer, vice president; John S. Vogt, Fowlerville, secretary-treasurer.

### Gifts To Prospects & Concentrated Effort Ups Big Boxes Sale

(Concluded from Page 1, Column 2) notable sidelight of the drive was that demand for 8-cu. ft. units also rose to the extent that back-ordering was necessary, and that sales all along the all-porcelain line were stepped up.

As originally outlined, the "Blue Chip" activity placed emphasis in consumer literature on the advances that have been made in refrigerator manufacture in the last dozen years, and the conveniences that are especially available in the larger deluxe models. As a special gift to summertime buyers of the two larger-size units, a silver-plated, vacuum-type ice cube servette was included as standard equipment.

Since most of the units sold in the drive replaced existing mechanical refrigerating equipment, salesmen obtained valuable experience in the replacement business. According to G-E manufacturing officials, the drive also helped to iron out a normal dip in the company's production curve.



**KEROTEST**  
VALVES AND FITTINGS  
The Standard of the Industry  
Kerotest Manufacturing Co.  
Pittsburgh, Pa.



**Use CHICAGO SEALS**  
for seal replacements  
A complete line in all sizes  
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## MILLS COMPRESSORS for Commercial Use

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**KEEP this under your hat, when you need anything in REFRIGERATION and AIR CONDITIONING supplies and equipment. We have 12 big warehouses to serve you.**

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3 CHICAGO BRANCHES, NORTH, WEST, SOUTH

NEW YORK BROOKLYN BRONX JAMAICA  
DETROIT CLEVELAND ST. LOUIS



**AMINCO**  
WATER REGULATING VALVE  
(Pressure Controlled)

Aminco No. 614 Water Valve is used to regulate the amount of water passing through water-cooled condensers. The valve is quiet in operation, free from chattering; practically friction-free and provides a maximum flow of water with a minimum head pressure differential.

Aminco Water Valves have a double bellows seal, removable body seat and will operate on all refrigerants except ammonia. Standard connections  $\frac{3}{8}$ " x  $\frac{3}{8}$ " F. P. T. Send for Bulletin No. 15.

### AMERICAN INJECTOR COMPANY

1481 FOURTEENTH AVENUE, DETROIT, MICH.

Pacific Coast: Van D. Clothier, 1015 E. 16th, Los Angeles, Calif.

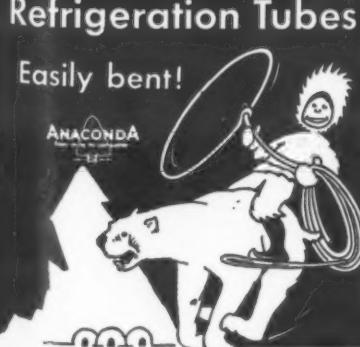
Export: Borg-Warner International Corp., 310 S. Michigan Ave., Chicago, Ill.

You never get a "Wrong Number" when you depend on the RANCO LINE of Household and Commercial Controls.



RANCO INC., Columbus, Ohio U.S.A.

**Anaconda Copper Refrigeration Tubes**  
Easily bent!



ANACONDA COPPER  
REFRIGERATION TUBES

THE AMERICAN BRASS CO.  
FRENCH SMALL TUBE BRANCH  
General Offices, Waterbury, Conn.

**Copeland**

**More Sales!**

You'll sell more Copelands, because your customers GET MORE FOR THEIR MONEY! Extra features, a famous name in refrigeration, and lower prices! Quality and value to please your customers—sales and profits to please you!

Write TODAY for Full Information!

Copeland Refrigeration Corporation  
SIDNEY • OHIO  
ASK ABOUT COPELAND COMMERCIAL REFRIGERATION AND WATER COOLERS

## Pittsburgh League Gets Chamber of Commerce Aid In 'Discount' Fight

(Concluded from Page 1, Column 3)

This declaration, after approval by the board of directors of the Chamber of Commerce, was adopted officially by the following retail trade groups: Electric League of Pittsburgh, Retail Merchants' Association, Retail Coal Merchants' Association of Greater Pittsburgh, South Side Businessmen's Association, Pittsburgh Retail Hardware Association, Pittsburgh Retail Grocers' Association, East Liberty Retail Merchants' Association, Retail Jewelers' Association.

The Pittsburgh Wholesale Merchants' Association has stated its belief that the proper chain of distribution is from manufacturer to distributor to dealer to consumer, has professed its satisfaction in the current "clean-up" activities of the city's retailers directed against the diversion of trade from legitimate channels, and has pledged its support in the elimination of purchases through other than these recognized channels.

According to Chamber of Commerce reports, the various retail associations are now engaged in securing from their members individual pledges to refrain from the practices condemned in the joint resolution. Efforts also are being made to obtain similar agreements from the distributors, jobbers, and manufacturers who supply the local retail outlets.

## September Big Month In Northern California

(Concluded from Page 1, Column 5) of 1938, when 601 units were sold. For the first nine months of the year, refrigerator sales total 9,873 units, as compared with 7,036 in the same period of 1938.

Sales of washing machines and vacuum cleaners also showed notable gains over the 1938 figures during September, washer sales totaling 750 units as against 492 last year.

Radio sales were down somewhat from 1938 totals, September sales this year being 4,398 units, against 4,614 last year.

Comparative nine-month figures on the principal appliances for 1939 and 1938 follows:

	1939	1938
Refrigerators .....	9,873	7,036
Ranges .....	108	102
Washers .....	6,032	5,045
Ironers .....	1,164	951
Cleaners .....	14,056	9,734
Radios .....	38,810	34,152

## South Africa, Brazil Best Export Buyers

WASHINGTON, D. C.—Exports of household electric refrigerators during September totaled 11,703 units, according to statistics compiled by the Bureau of Foreign and Domestic Commerce. Union of South Africa continued to be this country's best customer, with 2,749 units being shipped there during the month; Brazil was second, with 1,638 units.

Commercial refrigerator exports in sizes up to 1 ton totaled 971 units during the month, with a value of \$127,770, and refrigerator parts shipments were valued at \$334,847. Brazil led buyers in this field, with 139 units, while Sweden, Cuba, and South Africa were runners-up, the first with 87 units and the last two with 83 each.

Exports of self-contained air-conditioning units and parts were valued at \$23,073 during the month, with Alaska in the lead with \$1,202 in purchases. Canada was next with \$552, Puerto Rico third with \$535, and Morocco fourth with \$357.

## Sales Gains Continue In Birmingham Area

(Concluded from Page 1, Column 5) year. Each quarter of 1939 was better than the preceding quarter.

Radios have been the selling sensation of the year, reaching an all-time peak with a 72% increase, and, for September, a dollar volume exceeding that of refrigerators. Refrigerators were ahead 37% in dollar volume for the year. In percentage of sales, attic fans were highest with a 119% increase, and coal stokers next with 115%. Washers were 34% ahead, small appliances, 25%.

Figures on major residential appliance sales for the first nine months of the year as compared with the same period in 1938 follow:

Appliance	Nine Months 1938	Nine Months 1939
Refrigerators .....	4,406	6,021
Radios .....	7,497	12,898
Washers .....	1,761	2,364
Ironers .....	192	194
Water Heaters .....	70	74
Ranges .....	629	776
Attic Fans .....	80	175
Stokers, Oil Burners..	265	569

## Hays Is Wesco Manager

RALEIGH, N. C.—Larry W. Hays, who has been associated with Westinghouse since 1930, has been promoted to the position of branch manager of Westinghouse Electric Supply Co., with headquarters here.

## Tumy To Manage G-E Milwaukee Office

MILWAUKEE—P. Y. Tumy has been named manager of General Electric's Milwaukee office, succeeding A. L. Pond, who is retiring after 25 years of service as manager of that office. Merritt Lawrence has succeeded Mr. Tumy in charge of the Grand Rapids, Mich., office.

Mr. Pond, who has been manager of the Milwaukee office since 1913, will continue in an active advisory capacity until the end of the year. Mr. Tumy since 1917 has been resident agent at Grand Rapids.

## Berry, Sorensen Join Allen-Bradley Staff

MILWAUKEE—Two new factory representatives have been appointed by Allen-Bradley Co. to cover four sections of its midwest territory.

Paul Berry, with headquarters in Oklahoma City, will represent the company in the states of Oklahoma and Arkansas, and A. V. Sorensen, operating as Midwest Equipment Co., Omaha, will handle the Allen-Bradley line in Nebraska and western Iowa. Mr. Sorensen formerly owned Midwest Electric Supply Co., Omaha.

## Silverstone Heads Sales For Los Angeles Firm

LOS ANGELES—Nat Silverstone has been appointed general sales manager of Refrigeration Distributors, manufacturer of Utility products. Mr. Silverstone was formerly connected with May Co., and with Eureka Vacuum Cleaner Co.



MOST ORDERS SHIPPED DAY RECEIVED  
PENN BRASS & COPPER CO., INC.  
1230 WEST 18TH STREET, ERIE, PA., U.S.A.

## HOW ABOUT 1940 MODELS?

Are your 1940 refrigerators going to be proofed against clogged valve trouble?

You know that moisture does cause trouble in many cases, because it is impossible to get all the moisture out of the unit, even with the most careful baking and assembly.

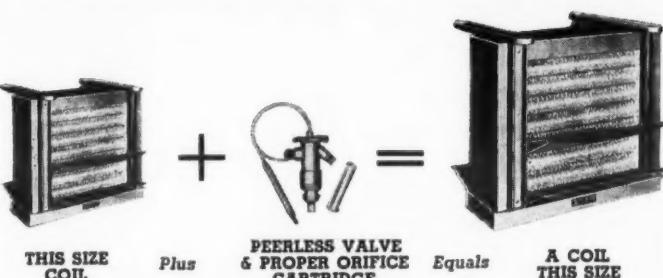
You can end that trouble once and for all by building into every unit a simple little cartridge of Activated Alumina. Activated Alumina traps and holds moisture, takes acidity out of the refrigerant, prevents trouble. Such built-in cartridges are already highly successful on certain makes. You can use them too, as a protection for the good name of your machine, as an inexpensive means of ending needless service expense. ALUMINUM ORE COMPANY, (Sales Agent: ALUMINUM COMPANY OF AMERICA, 1908 Gulf Bldg., Pittsburgh, Pennsylvania.)



## ACTIVATED ALUMINA

PREVENTS CLOGGED REFRIGERATOR VALVES

## PEERLESS ORIFICE CARTRIDGES INCREASE COIL CAPACITY



Adding a PEERLESS Thermostatic Expansion Valve, with the proper INTERCHANGEABLE ORIFICE CARTRIDGE, to a refrigerating coil increases the EFFECTIVE SURFACE at no additional cost. More surface is available for useful work—less is wasted in picking up superheat. More refrigeration is accomplished, with less starting power and running time.

The PEERLESS Orifice Cartridge includes ten different orifice sizes—all interchangeable—and available only in PEERLESS Thermostatic Expansion Valves.

STOCKS IN ALL PRINCIPAL CITIES . . . SEE YOUR REFRIGERATION PARTS JOBBER.

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That's why Service Engineers everywhere standardize on A-P Valves — to lick repeated complaints of "Valve Trouble." The DEPENDABILITY built into every A-P Valve avoids expensive call-backs, and assures an accurately controlled installation—the best builder of Good Will.

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Model 205-C Thermo-static Expansion Valve.

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